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APPENDICES

TO THE

REPORT

OF

The Commission appointed to inquire
into the Medical Arrangements in
Mesopotamia

VOL. II.



July 1916.

Vol. II.

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A P P E N D I X III.

Statements received by the Commission after their return to India.

Letter from Brigadier-General, A. Cadell, I.E., Force "D," to Sir W. Vincent, c/o Presidency Postmaster, Bombay, dated 15th May 1916.

In reply to your letter No 97-109, dated Basrah, the 11th May 1916, in which you ask for certain information for your Commission, I submit herewith after consultation with Lieutenant-Colonel O. Flaherty, R. A. M. C., O. C. No. 24 Combined Field Ambulance attached to my brigade, the sub-joined statement.

1. That the main cause of hardship to sick and wounded since my arrival in Mesopotamia on 28th February 1916 has been the insufficiency and unsuitableness of river transport conditions which still exist.

This insufficiency of transport caused over crowding of field ambulance and casualty clearing hospital, great delay in evacuating them in consequence, and as a result overcrowding of boats and barges, the majority of which were entirely unsuitable for the transport of sick and wounded. The latrine arrangements were very bad and quite insufficient both for officers and men.

2. There appears to be an insufficient number of properly equipped casualty clearing hospitals—as an example No. 24 Combined Field Ambulance of my brigade was used as a casualty clearing hospital when two of its medical officers were taken away and part of the personnel (one for river party work and the other for duty at Wadi in medical charge of details). The ambulance had 1818 British and Indian patients, when its staff and personnel were insufficient even for the 100 patients for which it was equipped.

At Wadi the ambulance had no less than 300 patients mostly wounded, and at Falihiyeh the ambulance was unable to evacuate any sick or wounded from 29th April to 6th May. This may have been due to the necessity for taking supplies to and wounded from Kut.

3. Field ambulances equipped from India have no suitable tents for operating in or for dressing patients; at least one E. P. tent should be supplied for each section, as the tents now provided are quite unsuitable. The lighting arrangements are bad, the Lord's lanterns being almost useless, and the same remark applies to the distinguishing lanterns. When E. P. tents were applied for at Wadi and Falihiyeh they were not obtainable.

4. Proper water carts should form part of the equipment of field ambulances fitted up in India. The water problem became a serious one with the field ambulance referred to when it had a large number of sick and wounded although within a short distance of the Tigris river. The pakhals at present in use are fragile and cannot stand the strain of active service for long.

5. Even as late as the 26th April iron barges were being used for the transport of sick and wounded. These barges can only be described as hot air ovens.

6. There should be a sufficient number of properly fitted hospital steamers and barges supplied with their own medical staff and personnel to be used for this purpose only, instead of the present practice of withdrawing medical officers and personnel from units, who are frequently quite new to the work and in consequence the patients suffer hardships. The ordinary river steamer is quite unsuitable for the transport of sick and wounded, and sufficient numbers of hospital ships and barges with their own personnel should be provided to obviate the necessity of using ordinary river steamers and barges for their purpose.

7. The provision of ice machines, soda water machines and electric fans is essential for troops in hospital and seems to be equally essential for troops (British) remaining at Basrah and at other places where these conveniences could be established.

8. Huts should be built for the accommodation of all troops at Basrah and on lines of communications as far as is possible towards the front. Huts are

easily erected and matting appears to be plentiful. My Brigadier is at present under canvas at Basrah, the British troops are in the E. P. tents, the Indian troops in I. S. tents and the heat during the day is very excessive.

9. I have mentioned nothing which is hearsay but you have probably heard as much as I have of what happened early this year. I have only touched on points which have come under or been brought to my notice. I arrived in Mesopotamia at the end of February.

Statement of Lieutenant-Colonel G. P. James, I.M.S., A. D. M. S. (Sanitary), Mesopotamia, dated the 16th May 1916, on deficiency of water-supply arrangements.

After examining the statistics and reports on the present cholera outbreak in the Tigris Army Corps, and after consulting many officers and making a personal investigation of the conditions in the 13th, 3rd and 7th Divisions up to the sites of the advanced dressing stations and trenches, I am of opinion that the outbreak of cholera in the Corps is due to the failure to supply the troops with a sufficient amount of purified drinking water and that the remedying of this defect is a first essential to the reduction of the disease.

I understand from officers consulted that the failure is admitted, but it is said it arose from absence of water carts, pumps, tarpaulins, diggies and other water-supply materials which has been repeatedly asked for, but not supplied.

During my inspection of the water supply arrangements for troops of the 13th Division on the 2nd May 1916, I noted :—

- (1) No regiment in this Division has a water cart. I was told that the water carts had been left at Basrah.
- (2) The Medical Officer of the 6th South Lancas. Regiment informed me that the regiment had not enough pakhals.
- (3) I observed that men were collecting water from the river in old lime-juice barrels—presumably from lack of water carts and pakhals.
- (4) Near the support trenches a party of men were bathing in a nullah or marsh of stagnant water. The officers (D. A. D. M. S., 13th Division) who accompanied me informed me that although the men were marched to this place for washing purposes they had very strict orders against bringing their water bottles with them and had been warned that to drink the water would lead to severe punishment and probably to an attack of cholera. But in reply to our questions one man admitted having been so thirsty that he had a good drink of the water and several men had surreptitiously brought and filled their water bottles from it. One man had 3 water bottles which he had filled for comrades in the trenches.

All the men we questioned admitted being aware of the strict orders regarding this water. Their willingness to face the risk of severe punishment and of contracting cholera indicates a probability that the drinking water supply in the trenches was insufficient.

- (5) Neither sedimentation nor chlorination of the river water was carried out in this Division. The Divisional C. R. E. informed me that this was due to the absence of tarpaulins or other suitable vessels for the storage of water and that the matter had already been reported to the B. G. R. E.

In the 3rd Division, also, there were no water carts and the lack of storage vessels for water and other arrangements for sedimentation and chlorination was very similar to that in the 13th Division.

The arrangements of the 7th Division were distinctly better than those in the other divisions but, even so, I do not consider that the men were getting a

sufficient amount of water for the hot days which prevailed. We made a detailed examination of the arrangements of the 2nd Leicestershire Regiment in support trenches beyond the advanced dressing station. The staff for water supply was one N. C. O., 4 privates, and 14 bhisties. The regiment had 32 pakhals and 15 mules, but no water cart. Two tarpaulin settling tanks had been constructed and were working well, alum and bleaching powder being used. The water was clear and good, but the limit of work of the staff available was said to be 51 pakhals per day which, with a regiment 600 strong, would give each man about half a gallon a day for all purposes. At the time of our visit the regiment was only about 400 strong and each man got his water bottle filled only once a day. The arrangements so far as they went were good but they were obviously quite inadequate. Yet it is doubtful if regiments in the 13th and 3rd Divisions were so well served.

It is well known that if men in the trenches cannot get an ample supply of good water they will drink water from any source available to them. The origin of the first outbreak of cholera was traced to the water of a ditch on a site previously occupied by Turkish troops among whom the disease was prevalent. Several dead bodies were afterwards found in the ditch and the water was very foul. It is unlikely that men would have drunk from it if better water in sufficient quantity had been available.

Road Parties and Echelons.—Very few road parties, echelons or mobile columns start from the Base with any proper materials for collecting, storing and purifying their water. A few days ago I visited a road party of the 2nd-7th Gurkhas 15 miles above Amarah. They had started from Basrah on the 17th February 360 strong and without any arrangement whatever for collecting water. After some days or weeks they obtained a few kerosene oil tins which have served them since. The officer in charge of the party informed me that they were not entitled to pakhals because they were a draft to a regiment which already possessed all the pakhals to which it was entitled. Unfortunately the regiment was in Kut so the draft would have no opportunity of sharing the regimental pakhals. At the time of my visit they were storing water in an unlined mud hole dug by the side of an irrigation ditch. Three cases of cholera have occurred among them and diarrhoea is very prevalent.

Letter from Capt. J. Carruthers, G. S. O., to Sir William Vincent, dated 18th May 1916.

In reply to your No. 85, dated 3rd May 1916.

As Staff Capt. of the area in which hospital was located at Shaiba I had to detail guards over the Turkish wounded. Some of these were in tents and others in the open near main entrance to hospital, there being no more accommodation under cover available. All these had been attended to and I should judge had had as much attention as our own men which owing to the shortage of medical personnel was sketchy. I saw no cases of maggot infected wounds though I can imagine that Turks wounded far out from Shaiba on 12th and 13th April 1915 and not brought in till 15th and 16th April 1915 would very possibly have got into this condition owing to heat and dust.

Letter from Lieut.-Col. C. F. Wanhill, to Sir William Vincent, dated Lucknow, the 18th May 1916.

I see by the paper that you and Major-General Bingley are on your way back to Bombay. Unfortunately for me I shall not meet you there. In accordance with your letter I sent round to all the hospitals and asked Officers, who could give evidence which would help the Committee, to do so, in writing. I am afraid, however, the response was not great. In one case, however, Lieut.-Col. Donovan had a very complete diary and he sent in a long statement, which I forwarded to you, having heard you had returned to India *via* Karachi, at Simla. This you will get on your return, for it was sent under registered cover and Head Quarters asked about it and apparently discovered it. If I may say so, the

author was a very loquacious Irishman and had taken copious notes to clear himself of trouble. He was *not* appreciated in Bombay during his stay. Still I expect you have quite enough evidence to check statements with now, so there is no need for me to say more.

I don't know whether the question of my giving up the A. D. M. S.' ship at Bombay is of any interest to the Committee, but General Knight will probably, if he thinks it of sufficient importance, tell you all about it, as he was very upset about it at the time. This much I think you will bear me out in, that no one suffered any avoidable hardship while in or passing through Bombay, and I must say that my Staff worked unceasingly to this end. All I hope is that those who bore the brunt, from July last till we got a free hand from Simla, will not be forgotten. Now fine hospitals have been established and money spent with a free hand, the services of those who had to make bricks without straw and do their duty against the greatest opposition might be forgotten and that I should be very sorry to see. The Staffs of Colaba and the Marine Lines War Hospitals worked ungrudgingly under the most tremendous difficulties, which have now to a large extent disappeared. Whether this comes within the scope of the Commission's duties, I cannot say, but write in hope of a good word being put in for these officers.

Demi-official from Major W. N. Campbell, to Sir William Vincent, dated 20th May 1916.

Herewith the last Form you wanted from me.

It does not look a very difficult one to make out but it look a lot of getting as the figures had to be got from a detailed search by us through Hospital Books as they are not figures kept by this office.

You will note in September, October and November figures fell off a lot as Hospitals were established in Amarah and in Kut.

One of course realises these are only Basrah figures and that there are Hospitals and sections of Hospitals in Amarah.

Would you very kindly let me know that you receive all the Forms which I have despatched.

Statement showing the number of sick and wounded transferred by river craft to the Basrah Base Hospitals, I. E. F. "D," from January 1915 to April 1916.

Months.					Total Numbers.
January 1915	...	...	...	...	398
February 1915	...	...	...	...	219
March 1915	...	...	...	...	482
April 1915	...	...	...	...	1,431
May 1915	...	...	...	...	1,010
June 1915	...	...	...	...	1,082
July 1915	...	...	...	...	1,888
August 1915	...	...	...	...	1,097
September 1915	...	...	...	...	443
October 1915	...	...	...	...	779
November 1915	...	...	...	...	355
December 1915	...	...	...	...	1,846
January 1916	...	...	...	...	2,537
February 1916	...	...	...	...	1,007
March 1916	...	...	...	...	2,822
April 1916	...	...	...	...	5,747
Total					23,143

*Letter from the S. M. O., I. G. H., to the A. D. M. S., Base I. E. F. " D,"
No. A.D.M.-227, dated the 21st May, 1916.*

Reference your No. R.-653, dated 10th May, 1916.

The information required by the Commission for the year 1915, for No. 9 I.G.H., only is being furnished direct to Sir William Vincent by Captain Wermicke, I.M.S.

2. I attach herewith the information required regarding Nos. 9 and 10 I.G.H. combined for the first three months of the year 1916.

TABLE I.

Number of patients in combined Nos. 9 and 10 I.G.H., including Makina Masu Overflow for the first three months of 1916.

		Maximum.		Minimum.
January	...	2,654	...	1,648
February	...	2,398	...	1,529
March	...	2,290	...	1,608

TABLE II.

List of effective personnel of Nos. 9 and 10 I.G.H., including that of section at Makina Masus Overflow, for first three months of 1916.

				January.		February.		March.	
				Numbers 9-10.	Total.	Numbers 9-10.	Total.	Numbers 9-10.	Total.
Medical Officers	...	...	...	8-12	20	7-7	14	7-9	16
Supply and Transport Warrant Officers				1-1	2	2-1	3	2-1	3
Assistant Surgeons	...	...	...	1-3	4	2-2	4	2-3	5
Sub-Assistant Surgeons	...	...	...	8-18	26	9-12	21	8-12	20
Dressers	...	...	...	2-8	10	2-9	11	1-8	9
Non-Commissioned Officers	...			4-4	8	4-2	6	4-4	8
Ward Orderlies	...	...	...	21-35	56	28-27	55	26-25	51
Followers	...	...	...	90-99	189	139-118	257	136-138	274

NOTE.—The Makina Overflow patients were accommodated in *chettai* huts at Makina up to about 1,000 strength looked after by one section personnel which is included in above returns. They were slight cases and convalescents.

F. W. GEE, *Lieutenant Colonel, I.M.S.,*

S.M.O., Indian General Hospitals.

Letter from Major F. James Lillington, Supply and Transport Corps, to Sir William Vincent, dated the 21st May 1916.

With reference to your letter No. 70, dated 30th April 1916, I am afraid I cannot give much information as regards the arrangements for the treatment of the sick and wounded, as for the most part I was working beyond the point where the evacuating of sick and wounded took place.

The only time I saw anything was when I was evacuated to Basrah with a sick convoy from Nasariyah in July and in that instance in my opinion everything was done that was possible for the comfort of the patients. There was a sufficiency of everything in the way of food and drink and coverings for every one.

The only point I think that might have been improved was the provision of ice. Apart from two local ice factories in the country as far as I could see no provision for the supply of ice for sick convoys was made and I think it could have been possible to provide one or two small refrigerating plants at various points on the river to alleviate the discomforts undergone by sick and wounded during the tremendous heat of a Mesopotamian hot weather.

Letter from Lieutenant-Colonel F. G. Lucas, Commanding 42nd Infantry Brigade, to Sir William Vincent, dated Nasariyah, May 21st, 1916.

I am afraid I cannot give an opinion of much value on the points raised by you in your letter of 11th May, as we only arrived in Basrah from India on March 8th, remained there until April 29th, and then marched to Nasariyah along the edge of the desert, arriving at our destination on May 10th, so I have had very little opportunity of forming an opinion on the medical arrangements in Mesopotamia.

I bring the following points to notice :—

- (a) As regards personnel, it is most difficult to get men replaced who have once been invalided. This is especially noticeable in field ambulances, which are generally working shorthanded.
- (b) The hospital accommodation in Nasariyah seems quite sufficient, provided a weekly service of steamers be established to transport sick to Basrah, and so prevent overcrowding in the Nasariyah hospitals.
- (c) At present owing to a shortage in hutting materials, many patients are being treated in tents. I consider it essential that sufficient huts be provided without delay.
- (d) A number of electric fans, say 12 for each hospital, should be provided before the weather becomes any warmer.
- (e) A soda water, and an ice machine should be provided for the troops on the right bank of the river, in addition to those now working on the left bank.
- (f) Tanks for water storage are very difficult to procure in Nasariyah. These should be supplied at once, and a system of pipes with a central pumping station provided, to replace the present slow and laborious method of filling them.
- (g) Bullock drawn ambulances are quite unsuitable to accompany troops on the march over bad roads or heavy sand. Of the 22 tongas with which we started from Basrah, one was returned with sick officers after the first march, the remainder gave us infinite trouble for the next 4 days, and I was then forced to burn one (which had broken down hopelessly), and to send 13 more back to Basrah by boat.

The remaining 7, with teams of 6 bullocks each, we managed to bring to Nasariyah. A camel drawn ambulance, a modification of the vehicle which obtains in Rajputana, would, in the opinion of the medical officers accompanying my force, suit admirably.

Notes of a visit made on the 24th May, 1916, to the Medical Store Depôt, Bombay.

I visited this depôt with Mr. Ridsdale in order to ascertain how far the allegations made in Mesopotamia that the supply of surgical and medical stores was constantly delayed were correct and I am satisfied that there is a good deal in the complaint. At present indents from Mesopotamia are received from one source only, from the Medical Store Depôt there, and as 3,000 cases of stores have already been supplied to Basrah there ought not to be any shortage and the authorities here do not delay complying with indents at all. There is some difficulty in getting particular articles such as compressed bandages and tabloids, but every possible effort is made to meet the demands and even if they are not met in full they are partially complied with at once and any balance is sent later. The system of sending supplies to hospitals and advanced medical depôts upcountry in Mesopotamia instead of sending them to a central depôt at Basrah was very unsatisfactory and even now when consignments are sent direct in compliance with orders outstanding from the period before the General Medical Store Depôt was opened there is great delay. I may cite the following instances:—

On the 28th November an indent was sent from the Meerut Stationary Hospital at Basrah. The articles were actually not received by that hospital until the 9th May. Another indent from the Amarah Advance Depôt was sent on the 5th February and though the articles were despatched on the 23rd February they did not arrive at their destination until the 3rd May. Another indent from Basrah from the Meerut Stationary Hospital was sent by cable on the 21st February. The goods were supplied on the 6th March but even then did not arrive until the 3rd May. I have seen other similar instances of delay and found that actually the supply of goods to Basrah takes about 6 weeks on an average and to upcountry stations about two or three months. I was satisfied when in Mesopotamia that these delays caused very great inconvenience. As far as I can ascertain on examining the books no blame attaches to the Store Depôt as they comply with demands with very fair expedition; but in some cases when articles were not available in Bombay and had to be procured elsewhere there was delay in despatching the consignment. The system of procuring all stores which have to be obtained out of India through the Director-General of Stores at the India Office also involves delay. I think that the officer in charge of this depôt should be allowed the greatest latitude to obtain his stores of surgical and medical appliances from any source and from any country that he thinks fit and without reference to the India Office at all. It is probable that many drugs could be procured readily from America. The Director-General of Stores at the India Office is always a little slow to move and there is reason to suspect that sometimes he overestimates the importance of economy, at the expense of expenditure.

We went over the stores and were much impressed by the amount of work that was being done in the various branches. The department employed for making artificial limbs was particularly successful. We are informed that the supplies of materials here are adequate to meet ordinary demands at present but that the war requirements have made it necessary to delay the demands of Civil Surgeons. The depôt indeed not only supplies the Expeditionary Force in Mesopotamia but also sends medical and surgical stores to the East African Expeditionary Force and to the hospitals at Alexandria and other places outside India.

W. H. VINCENT.

Statement of Assistant Surgeon D. W. Dudley. Taken at Bombay on 24th May, 1916.

I have been in Bombay in the embarkation staff since 1914. I have never been to Mesopotamia. I remember the first lot of sick and wounded that

came from Mesopotamia to Bombay in December 1914. The men appeared to be quite well-looking after and I heard no complaints about food or anything else. The "Madras" was the first hospital ship used on this route and she worked alone for some time. During this period transports were also used for bringing sick and wounded from Basrah to Bombay and I heard no complaints about them. The wounded appeared to be properly dressed. Most of them were convalescents. I do not remember a steamer called the "Ellora" particularly. I remember the "Varela" coming in the first time when she was a transport. I was only employed in the disembarkation staff for three or four months or possibly a little more. After that I have done embarkation work only but all the men that I saw when I did disembarkation came to us well-dressed and well attended and I heard no complaints. I did not see the men who came in after Ctesiphon. I only go to the ships now when there has been a death on board.

W. H. VINCENT,—24-5-16.

Letter from General George Younghusband, to Sir William Vincent, dated Colaba Officers' Hospital, the 24th May, 1916.

I do not know if you are still hunting after Medical reforms but if so I can give you one much needed here.

Apparently no officer (I do not know about men), however ill or however, urgent his case, is allowed, even on the recommendation of a Medical Board, to proceed to England without the personal sanction of the Commander-in-Chief.

The regulation is, as you may imagine, intensely resented by the medical profession for in their eyes it places a distinct slur on them. It assumes that they are either not fit to form a medical opinion on a case, or that they are liable to use their powers improperly.

As for the patients their language it is quite impossible to reproduce.

It is really quite pathetic to see boat after boat go off and these poor fellows, some very serious cases where mental worry is the worst possible thing, again and again disappointed, because their leave has not returned sanctioned from Simla.

To the ordinary observer the Commander-in-Chief places himself in a somewhat false, as well as exceedingly unpopular position, by this regulation. It would be perfectly impossible for him, or any other layman, to disagree with the recommendations of the Medical Board, therefore he has perforce to accept them or set all England in a blaze. It would therefore remove a very grave source of discontent (I might even use a stronger word!) if the recommendations of the Medical Board were at once and frankly accepted and allowed to be acted upon, I do not want to labour the point but I do think that officers and men who have fought as these have deserve the most liberal consideration.

You will notice that I have expressed myself with great bluntness but what I said is what you want.

Statement of Major T. E. Watson, I.M.S., made at Bombay 26th May, 1916.

I came out to Mesopotamia in December, 1915. I retired from the I. M. S. in 1913 but was recalled to military duty in 1914. I worked at first in the Indian General Hospital at Basrah and latterly as Civil Surgeon-Superintendent of Jail and in-charge 4th Rajputs. There was occasional overcrowding in the General Hospital. My Section was intended to accommodate 100 to 150 beds and sometimes had nearly double that number. The patients suffered from this overcrowding, as it caused, besides lack of space, lack of attendance. The lack of space was the chief disadvantage. I was about 8 weeks in the General Hospital. The wounded from the January actions arrived in a bad state,

Some of their dressings had not been changed for 4 or 5 days. They were very dirty. They made no complaints. Most of the wounds were quite clean in spite of neglect. I saw one case of tetanus, but none of gas gangrene. I saw no cases of maggots in wounds. Patients arrived fouled with mud and blood, but not with faeces. The Medical Staff on the river steamers was overworked and could not treat the patients properly. It was also impossible to treat stretcher cases huddled together at the bottom of barges.

I came from Basrah to Bombay in February 1916 in charge of the "Ellora" transport carrying 800 patients. I had the assistant Lieutenant Ghosh, I.M.S., temporary. Some of the patients were sick and some were wounded. Many required dressing. There was 1 assistant surgeon and 1 sub-assistant surgeon. My patients arrived in Bombay in a good state but the looking after them was not easy. There were no complaints about their condition in Bombay so far as I know.

I got such medical equipment for the voyage as I asked for, but the ship was not fitted up in any way as a hospital ship. The patients were infected with lice. I could not rid them of this pest, on the voyage. There was no disinfectant on board, only a small sterilizer for dressings. There were enough drugs and dressings. We had about 100 stretcher cases. It was very difficult to dress them on the crowded troop decks. We were at work all day and part of the night, arrangements for the accommodation of patients were unsuitable. No stretcher cases should have been sent on board. We had bad weather and this caused suffering to the stretcher cases as there were no cots and many patients were not even provided with mattresses. We could not wash the patients and they had no change of clothing. There were no hospital clothes to issue. The patients wore the uniforms they had been fighting in.

There were two sick medical officers on board—Captain Thomas, I.M.S., and Lieutenant Spencer, I.M.S. The former rendered great assistance.

There have only been 3 cholera cases in Basrah city. Two were imported.

I do not consider that the medical personnel allotted to the "Ellora" was sufficient. We should have had 2 more sub-assistant surgeons. There was no difficulty about the preparation of food except that the number of cooks was insufficient. We had 8, but wanted 16. We had to employ convalescents for this work.

A. H. BINGLEY,—26-5-16.

Statement of Colonel E. Jennings, I.M.S., examined at Bombay on the 26th May, 1916.

I went to Mesopotamia with the first brigade under General Delamain. It was in the end of 1914. The Fao engagement was the first action fought and there were no casualties among the troops. The next action was that of Saniyeh and there were 40 or 50 casualties. We put the wounded on to the "Varela." The strength of the force was then greater than a brigade. Then came the battle of Sahil and the casualties were 200 odd. The force then engaged was a division and Colonel Hehir was A. D. M. S. There were two field ambulances Nos. 125 and 126 out that day. There may have been a clearing hospital on board the steamer but it did not open out. I was on shore during the action at Sahil. Four regiments were actually engaged as far as I remember. I had first received orders to carry the wounded on with the force. Then as the number of stretchers was not sufficient to allow of this I was told to put the wounded into the fort on the left. This remained in the hands of the Turks and so we were told to put the wounded on board ship but this could not be done as there was a hurricane. The wounded were collected under the date palms on the banks of the river. I had four sections of a field ambulance under me and I sent these four sections out to different regiments and I remained with the panniers. The other field ambulance under Major Horton went away with another brigade

straight on and did not come into action at all. The wounded began to come in to me and I received about 80 or 100. As I had no means of removing them I could not get them to the river. I sent in walking cases and some officers on regimental stretchers to the date groves. In the morning stretchers were sent out and the rest of the patients that were with me were removed to the river bank but we had no shelter for them that night. We had some hot milk but no other food and it was very difficult to make a fire. About 30 wounded in all remained out that night and I think that men should have been sent out to bring us in. I was, however, protected by the rearguard. The day after the action the wounded were put on board the ships. I was told that two ships were prepared for sick and wounded, one for British and one for Indian troops, but I did not go on board these steamers. We waited on shore three days and marched in to Basrah on the 20th or 21st. Before coming ashore we had made arrangements to use the "Varela" as a hospital. We had already got some sick and wounded and I think they were very comfortable. There were no animals on the "Varela" except horses for the officers and possibly goats and sheep for food. The troops at Sahil were only allowed one blanket each and I know that my men had to give up theirs for the wounded and did not get any more for at least three months. We had to travel light owing to lack of transport. I think the arrangements were satisfactory in the circumstances. The number of mules was limited and the exigencies of war made it necessary for us to travel light. If it had not been for this and for the storm the arrangements might have been better.

I know that a certain number of badly wounded and sick were sent back after this action to India but I did not go on board the steamer. There ought to have been sufficient medical personnel and equipment on the steamer. I never heard of any actual shortage of chloroform on the "Varela" though one box supposed to be filled with chloroform was empty.

I went to Basrah in charge of No. 125 Field Ambulance and was there for three months. Our ambulance was directed to prepare the Sheikh's Palace for a General Hospital. The British General Hospital came up three weeks later. I remember that just as the place was finished Colonel Palmer came on shore. We vacated the place and the building next to it was taken up as an Indian Hospital. In the meantime we treated the Indian patients in tents. We were hurt at being moved out of the palace and I believe there was a little unpleasantness with Major Horton, I. M. S., about this but there was none with my ambulance. Later the Indian General Hospital came up and opened out but until they came we did the work of a hospital. One section of my ambulance went up to Kurnah but I remained at Basrah and Makina until we went to Ahwaz. I could not say whether up to that time the hospitals were overcrowded. I know we kept a lot of sick in the mild cases only. I went up to Ahwaz with General Gorrings's force. The force was, I think, at least two brigades. Colonel Adamson was A.D.M.S. There were two field ambulances with the force *plus* two sections I think of a cavalry field ambulance under Watson and a clearing hospital under Major H. Brown, I.M.S., who is now at Poona. The clearing hospital and one ambulance No. 4 was at Ahwaz when we arrived and it remained there. On our way to Ahwaz we stopped at Illah and sent in our sick and wounded to Ahwaz. I remained at Illah. Four sections of the field ambulance had then been made into a five section ambulance and was called No. 3 Combined Field Ambulance. I had received back the section which I had sent before to Kurnah but I sent one British section of my ambulance under Captain Dowling with General Gorrings's force which marched to Amarah. I remained at Illah myself. The largest number of sick that I ever had at Illah was 250. We used to send in convoys to Ahwaz by carts, mules and also by two motors. We had in the field ambulance—

4 medical officers.

4 assistant surgeons.

4 sub-assistant surgeons.

We were short of doolie bearers as a number of these men had gone sick. We were in Indian pattern tents, some single fly and some double fly. We took up 10 tents because Colonel Adamson insisted on this. We were first told not

to take tents. We were short of personnel at Illah but the work was done all right. The officers had to work harder and the conditions were rough as they must be on active service. We had one or two mattresses only and the rest of the men had to lie on straw. We had no pillows but we had blankets. We were never short of dressings or drugs. We were never short of milk. I always had 12 cases with me. Directly one was used I indented for another. There was a sufficiency of medical comforts. We were three or four weeks at Illah and after that we went in with our wounded to Ahwaz. General Wapshare was then at Ahwaz. The hospital at Ahwaz was in dug-outs and sheds. I do not think the Sheikh's house was then used as a hospital but I was only at Ahwaz for four days. There was no shortage of drugs, dressings or comforts there then. I brought back to Ahwaz 280 sick and there were other sick there. When I came back to Basrah I brought down 300 sick with me. I think we came on the "Mejidieh." We had four sections of a field ambulance to look after the patients on board. The cases were mostly of exhaustion and fever and it was very hot. The flies were very bad at Illah. We were in an old Turkish camp and the place was black with them. We had a few mosquito nets. If the tents were closed the flies were not so very bad. I can remember no case of delay in securing supplies of medical stores. I had my own stock. The real trouble was insufficiency of food owing to lack of transport. The mules were working day and night. The sick, however, never suffered. There were no latrines on the "Mejidieh." We stopped to put the walking cases on shore to ease themselves and for the lying down cases we had bed pans and tins. We had five sweepers as far as I remember. I do not think there were any mattresses. It was only a day's, that is 24 hours' journey to Basrah. At Basrah my ambulance was broken up and I was left with Major Bulteel, one sub-assistant surgeon and some doolie bearers and sweepers. The other medical officers, assistant surgeons and sub-assistant surgeons were taken off for other duty. Two went to Kurnah. Later Major Bulteel went sick. I used to have treat 80 or 100 sick. I think 200 was the maximum that I ever had. I was able to manage as the men were really not sick but exhausted and there was little to do for them. There were a few fever cases. I sent off bad fever cases to hospital and also heat-stroke cases. I used to get as many as 30 heat-stroke cases in a day from the Hampshire regiment. I was never short of drugs or comforts and I had plenty of ice. We were up to this time in tents. We were put into huts later. The hospital was situated between the Zubeir creek and the barracks.

In July I collected five sections of my ambulance less one medical officer—Major Bulteel who was sick and I proceeded to Nasariyah with General Gorrings's force. This force was, I believe, a little more than a brigade at first but we had to send twice for reinforcements. I was present at the actions of the 14th and 24th July. Colonel Adamson was also there and he was A. D. M. S. at the first battle. About one brigade was engaged and I think the casualties were 150 and they were sent back to Basrah next day on a steamer with one of my officers. It was very difficult to get the men in, owing to the creeks, but we got them all back by the evening of the engagement and I think the arrangements were in the circumstances very good. The men were brought back on stretchers and in *bellums* and were put on to the steamer. Captain Hendry went down in charge of the convoy. He had adequate supplies, food and medical stores and I have no reason to think that the patients did not travel comfortably.

On the 24th I was again in charge of this ambulance. In the morning engagement on that day the wounded were evacuated promptly and the arrangements were all right. In the afternoon the troops advanced and there was some delay as the ambulances had to evacuate the wounded already with them in hospital before proceeding forward but I know that all the wounded were either in the ambulances or in groups under medical officers by nightfall. There were about 400 wounded and 700 sick in the ambulance and I was in charge with Major Roberts and one sub-assistant surgeon. I had sent out my four sections to the front and I had to deal with about a 1,000 cases with Major Roberts and one sub-assistant surgeon for 36 or 48 hours. There was also two sections of another ambulance to help me and one British section of a third ambulance came up just in time to help. All these sections had been out at the front and actually in the headquarters staff there was Roberts, an assistant surgeon and myself. The wounded came back to us dressed and

the surgical specialist Major Roberts came in shortly afterwards. As to the sick they needed very little treatment and I do not think that the 1,000 men suffered from lack of treatment. There was a lack of food. I had a lot of condensed milk and I had biscuits. I also seized eight sheep going up for a regiment and we got some fowls and some fish but there was difficulty and delay in getting rations. I do not think however the men suffered seriously from want of food. We had tea. We had no cooking pots. We did what we could and the Commissariat did their best to help us but there was a delay of 24 or 36 hours in organizing things and the men complained of the food. We broke up biscuits and boiled it with meat and vegetables and gave it to them in that form. We moved up as soon as possible to the actual camping ground at Nasariyah and there we got 150 or 200 lbs. of milk, 100 fowls, 150 or 200 eggs, 80 or 90 lbs. of fish, limes, oranges and in fact everything I wanted in reason. For 48 hours there was a lack of organization which I think was unavoidable in the circumstances. All the wounded were dressed on the 24th. The medical personnel was short as we ought to have had a hospital with us. We were particularly short in assistant surgeons and sub-assistant surgeons, say 35 or 40 % short. There were four sections in my field ambulance and three sections of other field ambulances. In spite of the difficulty I do not think that the men suffered much and there was no shortage of dressings. I had a three months' supply and was able to give dressings to the Turkish wounded also. I had taken this supply as I thought the lake would dry up (*i.e.*, the Hammar Lake). There was no shortage of drugs or iodine or anaesthetics and I was able to supply regiments with the articles they wanted. We had tents for all the sick as we took E. P. tents from the Gurkhas. I took some ice with me but it did not last long. I filled up my chest at Kurnah and this lasted for the journey up. There is very little mortality in the field ambulances except from wounds. In September I came to India here on a month's leave and I have been here ever since.

Generally I think that field ambulances had frequently to work as hospitals and that this was a mistake. The General Staff were considerate to us and gave us what I wanted. I do not think that electric fans could then have been provided at Nasariyah and it was very difficult to get ice. The water in the lake was very low. The lack of clearing hospitals was not very serious because we did not move on (*i.e.*, from Nasariyah) but it might have been serious as the field ambulances could not have done all the work required. As it was we had to find personnel for convoys. All through the ambulances had to do too much and have had to do the work of General, Stationary and Clearing Hospitals and we did not have the equipment for this. We had only enough for 125 men and any additional arrangements had to be improvised. There were then two clearing hospitals in Mesopotamia. As far as my ambulance was concerned there never was a shortage of dressings or drugs. The Commissariat people did their best to help me but the men had to go down themselves and get the things and not rest contented with merely sending an indent. All my officers worked well and I am sorry that more of them have not been rewarded.

Majors Wright, Bulteel, Captains Hyslop, Dowling and Hendry were all excellent and the assistant surgeons and sub-assistant surgeons were just as good.

What was your opinion of Major Roberts?

I may be prejudiced but I thought that on more occasions than one he was wanting in energy. He was always exhausted and tired. I never saw him stirring himself but on the 24th he did a number of dressings. I saw a number of Turkish prisoners at Nasariyah. They had all the dressings they wanted. They were under their own doctors who were useless and heartless. I was sent on one occasion to see if they had all they wanted and I saw a man with a fractured leg who was not being attended to at all. I then got permission to take over 12 cases and I attended them with our own sick. I did not see any wounds with maggots in them but they were very foul. Their doctors did not look after the Turkish wounded properly. I do not consider that there was any breakdown in the medical arrangements at Nasariyah. Reinforcements had to be sent up and every boat was crowded but there certainly was no shortage of drugs or dressings. The lack of hospital clothing was a trouble. We were able

to send down all bad cases on mattresses and every man was dressed the day before he was sent down. The "Mejidieh" was our hospital ship and it was used as a gun boat also. The Turks were treated quite as well as our own men.

W. H. VINCENT,—26.5.16.

Letter from Captain H. Falk, I M.S., C. & D Sections, No. 4 Field Ambulance, to Sir William Vincent, Medical Commission, c/o General Headquarters, Basrah, dated Ahwaz, the 23rd May, 1916.

Reference your No. 34, dated 24th April 1916, (received 16th May, 1916), asking me for a written statement of any evidence of value which (it had been suggested) I am in a position to give on the subject of the arrangements made for the treatment of sick and wounded in Mesopotamia, I beg to report as follows :—

I. As regards the wounded, I have no evidence of value to give : the comparatively very few wounded that I have seen dealt with were always well within the number with which the field ambulance unit to which I was attached could adequately deal, and I have no criticisms to offer as to the medical arrangements for these cases of wounded, while they were under my observation.

II. As regards the sick, there was a period during the hot weather of 1915 in which considerable pressure was thrown on the medical arrangements at Ahwaz, where I was present with No 4 Field Ambulance. Possibly some remarks I can make concerning this period may be of some use for your purposes.

During May and June 1915 when the 12th Division was operating in the neighbourhood of the Karkheh River, convoys of sick from this force were frequently sent to Ahwaz. Also when some of the units of this Division arrived at Ahwaz (subsequently proceeding down the river) more sick were received from them. We were able from time to time to evacuate sick from Ahwaz to Basrah by boat, but not in sufficient numbers or sufficiently frequently to prevent a constant accumulation of a considerably larger number of sick than the medical units at Ahwaz would normally be expected to deal with.

As regards the numbers of sick in No. 4 Field Ambulance during this period, I find that the Officer Commanding No. 4 Field Ambulance on leaving Ahwaz last September (he subsequently went to Kut with the 2 British and one of the Indian Sections of the Field Ambulance) left in my office some old office copies of the daily "Morning State of Sick" return, from which I can give the numbers of sick (British and Indian) in No. 4 Field Ambulance daily during most of this period. These numbers are as follows :—

Date.				NO. OF PATIENTS IN NO. 4 F. A. ON THAT DATE.		
				British.	Indian	Total.
27th May 1915	...	...	...	96	216	312
28th "	...	...	...	82	212	294
29th "	...	...	...	95	234	329
30th "	...	...	...	102	199	301
31st "	...	...	...	134	197	331
1st June 1915	...	...	...	112	206	348
2nd "	...	...	...	134	206	340
3rd "	...	...	...	118	198	316
4th "	...	...	...	101	221	322
5th "	...	...	...	94	236	330
6th "	...	...	...	86	229	315
7th "	...	...	...	80	223	303
8th "	...	...	...	80	221	301
9th "	...	...	...	80	224	304
10th "	...	...	...	84	342	426
11th "	...	...	...	82	317	399
12th "	...	...	...	73	347	420

NO OF PATIENTS IN NO. 4 F.A. ON THAT DATE.

				British.	Indian.	Total.
Date.						
13th June 1915	...	...	...	73	299	372
14th "	...	...	...	76	269	345
15th "	...	...	...	67	229	296
16th "	...	...	...	61	226	287
17th "	...	...	...	63	207	270
18th "	...	...	...	65	194	259
19th "	...	...	...	61	226	323
20th "	...	...	...	86	257	343
21st "	...	...	...	89	262	351
22nd "	...	...	...	85	264	349
23rd "	...	...	...	88	282	370
24th "	...	...	...	86	278	374
25th "	...	...	...	87	292	379
26th "	...	...	...	89	312	401
27th "	...	...	...	92	332	424
28th "	...	...	...	100	365	465
29th "	...	...	...	108	378	480
30th "	...	...	...	105	375	486
1st July 1915	...	...	...	107	370	477
2nd "	...	...	...	110	355	465
3rd "	...	...	...	111	377	488
4th "	...	...	...	117	390	507
5th "	...	...	...	119	398	517
6th "	...	...	...	119	398	517
7th "	...	...	...	122	416	538
8th "	...	...	...	124	407	531
9th "	...	...	...	123	403	526
10th "	...	...	...	129	351	480
11th "	...	...	...	125	352	477
12th "	...	...	...	43	354	397
13th "	...	...	...	48	357	405
14th "	...	...	...	41	356	397
15th "	...	...	...	43	373	416
16th "	...	...	...	45	381	426
17th "	...	...	...	42	395	437
18th "	...	...	...	43	398	441
19th "	...	...	...	47	392	439
20th "	...	...	...	48	332	380
21st "	...	...	...	51	332	383
22nd "	...	...	...	48	329	377
23rd "	...	...	...	50	330	380
24th "	...	...	...	52	346	398
25th "	...	...	...	46	345	391
26th "	...	...	...	46	352	398
27th "	...	...	...	44	352	396
28th "	...	...	...	46	360	406
29th "	...	...	...	46	357	403
30th "	...	...	...	45	355	400
31st "	...	...	...	22	238	260
1st August 1915	...	...	...	24	245	269
2nd "	...	...	...	24	220	244
3rd "	...	...	...	22	220	242
4th "	...	...	...	22	222	244
5th "	...	...	...	24	216	240
6th "	...	...	...	24	209	233
7th "	...	...	...	25	211	236
8th "	...	...	...	5	61	66

No. 4 Field Ambulance consisted of 2 British and 3 Indian sections, each section nominally of 25 beds, the complement of patients therefore being nominally 50 British and 75 Indian, 125 patients in all. On occasion, a Field Ambulance should, no doubt, be able to make shift to deal with larger numbers of patients than its nominal complement, but that it should do so (entirely adequately) to the extent and for the time that the above figures indicate is in my opinion too much to expect.

As to the adequacy or otherwise of the arrangements in No. 4 Field Ambulance during this period of stress, I will confine my remarks to the 3 Indian sections, as I was working with them and not the British ones.

- (i) As to the *accommodation* available for all these patients, the 3 Indian sections had double-fly 160 lb. tents for 75 patients. Also dug-outs to accommodate 90 patients had previously been made. Also considerable numbers of E. P. tents were handed over to the Field Ambulance as the patients increased. But there came a time when only single-fly 160 lb. tents were available as further issues to the Field Ambulance 100 patients, more or less, had to live in these single-fly tents for several weeks of the hottest part of the year. I have no record of the temperature in these single-fly tents but I have a note that even in an E. P. tent it reached 125° F. at mid-day towards the end of July 1915.
- (ii) As to the *arrangements for the supply of food and drink* and the cooking of the food, the personnel (cooks and water carriers), provided for the purpose, were of course insufficient to meet the needs of so many patients. However dhooly-bearers with some knowledge of cooking were found to assist the cooks, fatigues of bearers were employed many hours a day in bringing water to the Field Ambulance and bearers also helped in the distribution of food and water to the patients. By these means I think the requirements of the patients in the matters of food and drink were fairly well met.
- (iii) As to the *medical treatment* of these sick,—
 - (a) I think the full *medical personnel* (one Medical Officer and two sub-assistant surgeons per Indian section) might have been sufficient for the purpose had they all been available all the time. But the M. O. in charge of one of the Indian sections had been transferred sick to Basrah on 22nd May 1915 (he was subsequently invalided to India), and he was not replaced till 16th July 1915. Also the M. O. of another Indian section was on the sick list with malaria from 5th to 20th June. Consequently for the latter period I was the only M. O. entirely available for charge of the Indian sick, though the Officer Commanding, Field Ambulance, in spite of the heavy office and organising work entailed upon him by the unusual numbers of sick also did some clinical work in the Indian sections at this time. Under the circumstances the amount of attention one was able to give to each individual case was somewhat limited, and to hope that in every case it proved sufficient for practical purposes is perhaps rather sanguine. In the case of the sub-assistant surgeons, too, one of the Indian Sections had only one sub-assistant surgeon instead of two from the time we were mobilized until the 19th June 1915; one had to be sent away for duty at Illah camp on the Karkheh River for over 3 weeks during this period; 2 others were on the sick list for parts of the time; also the clerical work the sub-assistant surgeons had to do at this time was particularly heavy: so that in point of fact the number of sub-assistant surgeons usually available for medical work was I think insufficient for the number of patients, though I think that nothing but praise is due to them for the excellent and hard work they accomplished throughout this time without complaint.
 - (b) As regards *medical equipment*, I do not think on the whole we lacked anything very essential, except perhaps Magnesium Sulphate (Epsom Salts) at times. We used large quantities of the latter in treating the bowel complaints, from which so many of these patients suffered, and though we succeeded in getting fresh supplies of this drug from time to time, they were rapidly consumed, and my recollection is that we were usually in the position of asking for more.

In addition to No. 4 Field Ambulance (to which alone so far I have referred) there were also present at Ahwaz at this time 2 Indian sections (50 beds each) of No. 19 Combined Clearing Hospital. All cases from No. 4 Field Ambulance that went to the base passed through this unit, which provided the personnel to accompany them down the river. Also they received a certain number of cases that had not been in No. 4 Field Ambulance. It must be mentioned that No. 19 Casualty Clearing Hospital was heavily handicapped at this time by not possessing any of the A. B. C. personnel that should form part of the establishment of Clearing Hospitals. In order to enable these 2 sections of No. 19 Casualty Clearing Hospital to carry on work at all while at Ahwaz, bearers of No. 4 Field Ambulance were constantly being lent to them for such work as moving their equipment, pitching tents, fetching water and rations, and carrying patients and their kits to the boat whenever they despatched a sick convoy to the base. The presence of this incomplete medical unit therefore really threw a considerable amount of extra work on No. 4 Field Ambulance in addition to that involved in looking after its own patients, the numbers of which at this time I have given.

To sum up the medical situation at Ahwaz at this time, I consider that to meet the requirements entirely satisfactorily, one of two things was necessary: either the presence at Ahwaz of say 2 complete British and 3 Indian sections of a general hospital with accommodation affording good protection against the heat, or else a sufficiently large and constant provision of boats for carrying patients to the base to prevent the accumulation of sick at Ahwaz that occurred. Neither of these alternatives being available, presumably on account of other activities of the Force in Mesopotamia at the time, I think that the available resources at Ahwaz for dealing with the sick were fully utilised, and that the extent to which the patients suffered from the defects I have referred to was on the whole and comparatively speaking not very great. It could not for instance be said that the medical arrangements ever "broke down" during this period.

Apart from the period to which I have referred, I have no evidence to give as to any inadequacy at other times of the medical arrangements of Indian Expeditionary Force "D" coming under my observation.

Statement of Captain Macrae, D. A. and Q. M. G., on the evacuation of the wounded at the Battle of Shaiba, dated Basrah, the 23rd May 1916.

At the time of this battle 12th—15th April 1915, I was Deputy Adjutant and Quartermaster-General, 12th Division, which was then in process of formation at Basrah. The bulk of the 6th Division was at Shaiba.

2. The floods were somewhat early in 1915 and the whole country between Basrah and Shaiba was inundated to a depth of about two and a half feet. Up to the 12th April troops and vehicles used to march across this inundation to Zobeir starting from a point near the Fort, since dismantled, at the head of the Khora Creek. On that date the Turks occupied Zobeir and this route had therefore to be abandoned. At the best it was a tedious and unsatisfactory means of communication, and men and animals used to arrive much exhausted after their six miles struggle through water and deep mud.

3. Although desultory fighting had been in progress for some time between the Turkish Army at Etwab and our troops at Shaiba, it was not till the night of the 11th—12th April that the enemy began an attack in force on the Shaiba position. Early on the 12th the General Officer Commanding, 12th Division, ordered me to organise a system of *bellum* transport between the Zobeir Gate (Basrah) and a point somewhat to the south of the Shaiba Fort. The most suitable type of craft for this work were the small passenger *bellums* which will hold about ten men, sitting, in addition to the two *bellumchies*, or about two and a half tons of cargo. With this load they draw about 16" of water. By means of armed parties sent out simultaneously to all places where *bellums* are normally to be found, I succeeded by mid-day in collecting about 80 of these

craft, and later on the police supplied another 20. These were all I could get then, for as soon as the purpose for which the *bellums* were required became known, all the remaining craft were removed, sunk or hidden away in creeks, and their owners decamped. To prevent the *bellumchies*, who were seized along with their *bellums*, escaping, they were shut up in a barbed wire enclosure which I had constructed at the head of the Khandaq Creek, where they remained when not out with their boats. They received rations and were paid up daily for their work. After one of them had been shot while endeavouring to escape, the others accepted their fate and worked well and cheerfully. I had four companies of Infantry with two maxims and a section of mountain artillery told off as a permanent escort to the *bellums*. Of these two sepoys accompanied each boat, and the remainder with the machine guns were conveyed in *bellums* as a fighting force. The mountain guns were mounted on specially constructed rafts. The normal system of working was as follows :—

The fighting escort went out at daybreak (5 A.M.). One party with a machine gun stopped at a point about half way across the inundation and another party with the mountain guns went on about half way between the first party and the Shaiba beach. The remainder of the fighting escort accompanied the convoy as advanced and rear guards. The head of the convoy thus started at 6 A.M. reached Shaiba about 9 or 10 A.M. started back at 2-30 P.M., and arrived at the Zobeir Gate at 6 P.M. All the *bellums* with the whole of the escort were usually in by 8 P.M., but this of course depended on the time we could get away from Shaiba, and also on such uncertain factors as wind and the state of the water.

4. When it became apparent that some severe fighting was in progress the following medical arrangements, as far as I was concerned, were instituted. A clearing hospital was established on the beach at Shaiba. To this place wounded were sent in carts and stretchers from the field ambulances. Here their dressings were adjusted and they were given tea, bovril and bread and butter. When my *bellums* were ready the wounded were placed on board, six sitting up cases and three to four lying down cases going to each *bellum*. As I had succeeded in commandeering the cushions belonging to the *bellums*, the lying down cases were made fairly comfortable. The weather was warm at the time so blankets were not necessary, but even so there were enough for all these cases. As soon as a *bellum* was loaded it went off straight away without waiting for others. The Clearing Hospital were very quick, however, the escort helped in every way they could and there was little delay in the despatch of the boats which followed one another in an almost continuous line. Medical personnel only accompanied the very seriously wounded. At the Zobeir Gate another clearing hospital was established close to the creek at a point where we could work six *bellums* at one time. Here the wounded were all removed from the boats except the very bad cases, which remained on board and were sent straight down the creek and round to the Hospitals. An ideal arrangement would have been to send all cases straight through in their *bellums* to the hospitals, but this was not possible as the *bellums* were wanted again early next morning, and the *bellumchies*, who were pretty tired as it was, could never have managed the additional journeys to and from the hospitals. At the Zobeir Gate, then, the greater part of the wounded were taken ashore, bandages examined, and bovril, tea, cocoa and bread and butter served out. They were then sent on to the various hospitals as follows. Severe cases by water in a few specially large, deep draught *bellums* which I had secured, and which could carry four to six stretchers; other lying down cases were sent in motor ambulances of which, to the best of my recollection, there were four. Sitting up cases went in army transport carts. These latter means of conveyance must have been very uncomfortable and a number of slightly wounded men preferred to walk part of the way rather than have the jolting which must have been pretty bad in places. Wounded prisoners of war were sent in motor ambulances or carts, according to the nature of their wounds, to the American Mission Hospital, which is about one and a half miles over a fairly good road from the Zobeir Gate.

Looking back now, I do not think that the medical and other arrangements outlined above could have been improved, taking the means at our disposal into

consideration. I also do not think that the wounded suffered any particular or unusual hardships, and it must I think have been the exception if a man was more than 24 hours on the journey between the dressing stations and the General Hospitals. Had we been able to obtain more *bellums* we could have run more cases straight through to the hospitals without removing them, but, as has already been explained, it was not possible to obtain any more in the time.

5. On the afternoon of the 12th the greater part of the 24th Punjabis and a quantity of ammunition was taken across by *bellum* to Shaiba. The convoy was attacked on the way by enemy *bellums*, but these were easily repulsed. The convoy started back the same day and arrived in the Khandaq Creek about midnight. Early on the 13th the convoy left with ammunition and stores and a more determined attack was made on it by about 25 enemy craft. A lively fleet action ensued between this force and the convoy escort which went out to meet it, but our mountain guns were too much for the enemy who retired leaving three of their craft in a sinking condition. The convoy returned to Basrah that same evening unmolested and with about 300 wounded all of which were cleared away by 10 P.M. Next day, the 14th, we brought back about 300 wounded who were disposed of by 11 P.M. On the 15th we had 500 wounded and some 500 prisoners. On this occasion work went on till nearly 2 A.M., as the convoy had been delayed by head winds. On the 16th we conveyed back about 200 slightly wounded and about 800 prisoners. This completed the evacuation of the sick and wounded from Shaiba.

BASRAH ;
The 23rd May 1916. }

J. MACRAE, Capt ,
D. A. Q. M. G., Lines of Communication.

Statement of Captain Macrae, D. A. and Q. M. G., on the evacuation of the wounded at the Battle of Kurnah.

On the completion of the operations on the Karkeh river which had occupied the last week in April and the first two weeks in May 1915, preparations were made to resume the advance by river on Amarah.

At this time all the country around Kurnah and as far up as Ezra's Tomb was inundated, and the only dry land consisted of a series of mounds of varying extent, which rose like islands out of the surrounding swamp and water. A series of these islands running from a point about $1\frac{1}{2}$ miles North of Kurnah up stream to the Rotah Canal formed the Turkish position. Each island was strongly entrenched and occupied, and each was in a way able to support the other with fire, though the lateral and other communications were bad, being across stretches of open water and swamp.

2. The 6th Division was gradually concentrated at Kurnah, and preparations completed for driving the Turks from the series of islands mentioned above. As the operations would be essentially amphibious, a large number of *bellums* and other small craft were collected and sent up to Kurnah for the force. The general idea was for one brigade to advance from Kurnah in *bellums*, covered by the fire of the gun boats and floating batteries, and capture the various islands in detail ; while the other brigade (the 6th Division had only two brigades during these operations) followed in river steamers.

3. The medical arrangements for this battle were as follows. Two ships, and "P. 4" and "P. 7" were told off as ambulance vessels to run between Kurnah the Basrah. The next link to the firing line consisted of six large covered-in *mahailas* fitted up as ambulance craft and towed by small launches. These *mahailas* being of light draught could be moved to the mouths of the many creeks which intersect the marshes and divide one island from the next. The *mahailas'* crews could then pole their craft to wherever they were wanted. The third link was formed by the *bellums* in which the troops had advanced and which would carry the wounded from the dressing station on shore to the *mahailas*. The D.D.M.S. of the Division controlled the movement of the *mahailas* and *bellums*. The I.G.C.

was responsible for the ambulance ships, which were fitted with improvised beds made of stretchers, ice, condensed milk, and other hospital comforts. The D. M. S. Force was to have provided the necessary medical personnel for these two ships from a stationary hospital which was then at Kurnah. Owing, however, to the large number of sick (especially heat-stroke cases), who came in during the two days preceding the battle, it was found, when the time arrived, that personnel for one ship only could be made available. As things turned out this did not matter very much, there being very few wounded to attend to.

4. The action was timed to commence at daylight on the 31st May. By 6-30 A.M. the first Turkish island had been carried, and by 12 noon all the islands forming the Turkish advanced position had fallen into our hands. Our casualties were, to the best of my recollection, under forty all told, and there were about the same number of wounded prisoners. The arrangements outlined in paragraph 3 above worked perfectly but were never really tested owing to the small number of casualties. On the following day the advance was resumed, but the enemy were found to have evacuated all his positions in and around Rotah and retired up river. The advance was therefore pushed forward and Amarah was occupied without further opposition of a serious nature.

5. I do not think that the wounded suffered any hardships due to want of means for their rapid evacuation. What all ranks and especially the wounded did suffer from was the want of ice. The ambulance ships carried as much as they could get, but that was not nearly enough as there was then only one ice factory in Basrah with a strictly limited output. The bulk of the wounded in the action of the 31st May were back in Basrah by the evening of the 1st June.

Letter from Lieutenant-Colonel H. A. Holdich, to Sir William Vincent, dated 24th May 1916.

Please accept my apologies for the delay in answering your No. 86 of 3rd instant. I have been in hospital and am now invalided to India where my address is c/o Thomas Cook and Sons, Bombay.

I was Brigade Major, 16th Infantry Brigade, at Shaiba, during the operations of 12th to 14th April 1915 and can assure you from personal observation that the alleged neglect of Turkish wounded at that time has no foundation in fact. On the 12th April we were on the defensive entirely within our own entrenchments and had no opportunity of bringing in Turkish wounded. The Turks themselves removed most of their wounded during the night of the 12th and 13th. On the 13th when we assumed the offensive we brought in all the Turkish wounded we could find on the ground we traversed. Our efforts in this direction went so far as to make some few of our own slighter cases walk in order to provide stretchers for Turks. On the 14th (Battle of Barjisayah) we had as much as we could cope with in the removal of our own dead and wounded. On the 15th we sent out parties to bring in Turkish wounded and on that same day I saw Turkish wounded in the ambulance at "Tower House" with their wounds dressed. This is, to me, conclusive that the Turks received equal treatment with our own men. It may very well have happened that Turks who had been wounded on the 12th were not brought in till the 15th, owing to their having fallen in some area not traversed by our troops, also it has to be borne in mind that the Turkish soldier is a verminous person generally, but I have no hesitation in affirming that there was no delay or neglect in the treatment of the Turkish wounded at Shaiba.

Letter from Brigadier-General E. C. Tidswell, Commanding 34th Infantry Brigade, to Sir William Vincent, dated 25th May 1916.

With reference to the postscript to your No. 97-109, dated 11th May 1916, a copy of the orders given to Captain Hallinan, R.A.M.C., on February 7th

was sent to you with my No. 464-B.M., dated the 8th instant. No further orders regarding the opening up of his dressing station were issued, firstly, because it was impossible to foresee at the time of starting what would be the course of events on that day; secondly, because it was particularly undesirable that a dressing station should have been opened up until the supporting column from Nasariyah was met, and such action would have delayed the pace of the retirement, and the number of casualties to be treated was not sufficient to render it necessary to open up a station; thirdly, the duties of Bearer Sub-divisions are clearly laid down in Field Service Regulations, Part II, Section 76, paragraphs 5 and 6, and it would be redundant to publish them afresh each time an operation takes place. On meeting the Nasariyah supporting troops, Captain Hallinan acted, in my opinion, quite correctly in using his discretion and opening up his section. Shortly after he had opened up his section the demoralization of some of the troops of the Nasariyah column took place and the number of casualties increased, and it was imperatively necessary to get back the dressing station without delay, but by this time a fresh station had been established further back by Colonel Watling and Major Patton, I.M.S., so that from the time a dressing station was required there was always one in position. I reiterate that I am quite satisfied with the action of the medical officers on that day.

As regards the evacuation of the wounded from Nasariyah to the base, any discomfort and inconvenience that was experienced was due to the absence of hospital ships capable of crossing the Hammar Lake and the consequent necessity to use *mahailas*. This is now being rectified.

As regards the future, the 34th Infantry Brigade is under orders to proceed to Khamsieh, where it will be necessary to collect materials afresh and construct matting huts again for the troops. This will entail some hardships to the sick but the move is no doubt necessary and so this discomfort cannot be avoided. To alleviate the necessary discomfort as much as possible, the installation of ice and mineral machines at Khamsieh is most necessary and it is suggested that motor shallow draught ambulance launches be supplied for the rapid and comfortable transference of sick from Khamsieh to the hospital ships at Junction Camp. The size of the waterway between Suk and Khamsieh precludes the use of hospital steamers.

Letter from Lieutenant-Colonel A. M. S. Elsmie, Commanding 28th Brigade, to Sir William Vincent, dated 25th May 1916.

With regard to your letter No. 97-109, dated 11th May 1916, I am not in a position to give much first-hand evidence on the subject of hospital arrangements in Mesopotamia.

I arrived at Basrah on the 4th December 1915, and proceeded direct to Ali-al-Gharbi.

I have rarely been in rear of First Aid Stations since the advance from Ali-al-Gharbi commenced on the 6th January 1916, so that much of my evidence would be "hearsay" and would only deal with matters which must have been obtained first-hand from officers who were themselves wounded and personally experienced, or witnessed the deficiencies of hospital arrangements.

I officiated as Chief Staff Officer to Sir George Younghusband during the concentration of the force at Ali-al-Gharbi and the battle of Shaikh Saad. I therefore am aware that the first advance took place with a very inadequate hospital establishment; a Brigade Field Ambulance, without even its full establishment of bearers, etc., having to do duty for more than a Division. This fact will, of course, be on record.

As Commanding Officer of the 56th Punjābi Rifles (Frontier Force), I know that hospitals at Shaikh Saad were most inadequately provided at the outset with menial establishment. Many of my sepoys complained to me of the difficulty of obtaining food either in field ambulances, or on hospital ships, but I have not heard any of these complaints for some time.

As far as my personal observations are concerned the hospital arrangements are now vastly improved, and the collection of wounded on recent battle-fields and the method of transport and its use, has reflected great credit on all concerned and could not have been bettered under the circumstances.

2. In my opinion, efforts should now be concentrated in ensuring that the great improvement in hospital arrangements is maintained. To add to the extra comfort of patients in field ambulances at the front, I would suggest that all hospital tents, other than I. P. tents, be supplied with *choppers* and that British patients be supplied with camp beds and mosquito curtains.

3. Some form of residuum oil (obtainable, I believe, in Basrah) might be sprinkled on roads between advanced dressing stations and hospital ships, in order to keep the surface of roads smooth and free from dust. In fact any steps that can be taken to improve the surface of roads used by hospital motors and other ambulances should be adopted.

Statement of Captain W. Lumsden, R. N., Director, Royal Indian Marine, dated Bombay, the 25th May 1916.

I was first asked to provide hospital river steamers on 6th January 1916. I mean by this steamers taken up in India. I was asked to pick out suitable vessels. The General Officer Commanding, Force "D," gave rough indications as to what was wanted, but steamers of the type required were not to be found. He wanted 4 steamers and 8 barges to carry 2,000 patients. I am well acquainted with the 'P' class of boats. I selected the original 7 'P' boats. I could not find steamers and barges limited to a draught of 3' which could carry 500 patients, nor could I find steel barges suitable to fit up as hospital barges. The composite barges I fitted up were the coolest vessels of their kind I have ever seen. I fitted them up with electric lights and fans. Each took 56 patients. If the electric fans were removed it was done locally, *i.e.*, in Mesopotamia. I have delivered 3 hospital steamers, *viz.*, the "Sikkim," "Coromandel" and "Ardlui" in Mesopotamia. I sent 4 fitted barges and fittings for 11 others. But I hear that the barges, other than the 4 fitted, were taken for supply work. I am informed that the "Sikkim" is very satisfactory. I have not heard about the other two hospital steamers. I never intended that the "Sikkim" should tow barges. I think that the "Sikkim" can do much better work without doing so. When I heard that it was absolutely necessary that these ships should tow barges, I did an experimental tow with the "Coromandel," and found that her speed on the measured miles was 6.8 knots. Towing one barge it was 5.5 knots and towing 2 barges 4.55 knots. This was with a fresh wind and a choppy sea; I don't think the "Coromandel" could tow two barges against the stream when the river is in full spate. At other times she might. I asked the General Officer Commanding to run a trial trip on the Tigris towing barges not carrying patients. He said he had not time to do it. The "Coromandel" was not reported as steering badly, except when going astern. You can't condemn a steamer because she does badly on her first voyages as the Captains are often inexperienced and don't know how to handle their vessels.

The "Coromandel" did very well under her trials here and steered well. She gave no engine trouble. When second-hand ships are brought in a hurry, you can't test machinery with the same care that we would in ordinary circumstances. The "Coromandel" did a satisfactory 4 hour trial and was well reported on in Burma, so it was not considered necessary to open up all her machinery. Her condition when she left here was good. There were no defects. We have lost 17 stern wheelers in transit to Basrah. They have got damaged in some way and started leaks which could not be controlled. Consequently those that have arrived there must have been badly strained en route. The "Coromandel" and the "Ardlui" underwent exactly the same overhaul as the "Sikkim."

					Patients,
The "Sikkim" carries	...	...	...	...	144
"Coromandel"	...	...	...	...	104
"Ardlui"	...	...	...	...	86

I have not received any report from Basrah, complaining about the "Coromandel" or the "Ardlui."

I purposely put in a full number of stretchers on the "Ardlui," my idea being that they could be removed if in the way and in any case could be used for walking cases. I also provided special trench stretchers for the ship.

I do not wish to imply that hospital barges have been taken for other purposes. What I wish to say is that 11 barges already in Mesopotamia were named by me as suitable for hospital purposes. I have sent 3 steamers and fitted out 3 more. 2 were sunk and 1 had to be brought back. I could not fit out any more as they were sunk on their way from Bombay.

The fittings of the "Sikkim," are the model for the rest. The design was approved by the Director of Medical Services who nominated a Medical Officer to supervise the fitting up of these steamers.

If the fittings of the "Coromandel" are in bad order it must be due to damage en route. She was in good order when she left Bombay.

The broken supports were probably damaged owing to strain and to bumping into the banks.

I have always considered that the towing of small fragile craft over sea would lead to unsatisfactory results.

I cannot send out any more shallow draught hospital steamers. There are none available and they cannot stand the voyage. I can send fittings to any extent required and Basrah is getting more steamers every day.

There are several paddle steamers coming round from Rangoon to Basrah. They are being towed round at this moment.

They carry about 150 cwts and draw 4 feet.

December and January are the best months to send vessels out.

Each hospital barge is capable of carrying 56 cwts.

I have received a report to say that the "Sikkim" can take a light tow. The "Coromandel" towed in Bombay harbour.

If the present hospital steamers cannot tow barges there are other stern wheelers in Mesopotamia to which their fittings could be transferred.

My opinion is that the local people don't make the best use of what they have got.

I have sent up complete electrical fittings for 12 barges, *viz*, for 2 barges each for 6 steamers—lamps, fans, switches, wiring, in fact everything required.

I maintain that composite barges are quite as suitable as steel barges of similar scantling for work on the Tigris. Moreover they are cooler for hospital work. We put in side scuttles to make them cooler. These barges have been built for stone carrying in Bombay harbour. They are only a few months old and are expected to last 50 years.

Every river hospital steamer was seen by some medical officer before being despatched. The general plan of fitting up was approved by Surgeon General MacNeece, Colonel Sir Victor Horsley and others. On the suggestion of the medical officer a few minor alterations were made. Otherwise they met with approval. We could not consult officers with practical experience of the Tigris as we have none.

I did not test the "Sikkim" or the "Ardlui" for towing: I only tested the "Coromandel." The "Coromandel" did not steer as well as some stern wheelers but I put this down to the inexperience of the officer handling her. There was no reason to suppose that she would not steer quite well when they got to know her better.

I have provided for hospital motor launches but I have provided a large number for general use.

I have never been asked by Basrah for any hospital motor launches. The G. O. C. asked me to be very particular about inspecting gift launches as two had to be sent back as useless.

Two launches were offered for Red Cross work. They were rejected as unsuitable by us.

On the 18th February I was asked to inspect motor boats (letter No. 278-98-Q., 17th February). Before that I had rejected two launches which had been submitted for my inspection privately. I have not inspected any other motor boats but on receipt of two ambulance barges from Calcutta on the strength of the letter above quoted I made a point of examining these barges and finding them totally unsuitable for the purpose retained them in Bombay as freight was urgently required for steam and motor launches in ship bound for Basrah and reported the fact that they were unsuitable to Headquarters. I was ordered by wire to send them off at once—see telegram H.-2952 of 17th April 1916—and was subsequently taken to task for having them inspected at all, letter No. H.-3916, dated 16th April. Since the receipt of this letter I am naturally rather diffident about examining steamers.

I am collecting the correspondence showing the action taken by us to collect river steamers. The Assistant Director, Calcutta, and the Port Officers at Karachi and Rangoon collected the information. I had all the information in the fleet books. The owners made no opposition; they knew that I had the power of requisitioning. I impressed them all.

I got information from Basrah as to steamers which would be useful to me and of which particulars were not recorded in the Company's books. Alexander, who had been working in the Sara Bridge, had special information about railway steamers. The Railway Companies do not issue fleet lists. I can only find out about railway steamers through the Railway Board. After the Government of India had taken the matter up I received orders to inspect certain steamers. I got information about them sometimes from the Quartermaster-General, sometimes from the Marine Department. I am responsible for finding steamers except in the case of those under the Railway Board.

Contradicting orders as to draught were received from Basrah, sometimes from the General Officer Commanding and sometimes from Simla. This made it difficult to make selections.

The Engineers of all the steamers were asked to make rough pen and ink sketches of the parts of the machinery with a view to castings of working parts being got ready. We also obtained all the drawing we could from previous owners of all parts of the machinery.

We have sent several thousand spare parts to Basrah. I furnish a list showing what has been done. Particulars are recorded in the Inspector of Machinery's office.

When the hospital steamers left here they were equipped with special connections to allow of water being pumped in by machinery. There was also a hand pump for use when the ship is not under steam. All this was tested before the ships.

I have never provided any floating pontoons for the construction of floating piers. Nor was I ever asked for any. It is possible that the pontoons supporting the terminal pipe lines of dredgers may have been used for this purpose.

Every river steamer sent to Mesopotamia was sent after being surveyed by myself or by some responsible officer. I did not think that some of them were suitable to be towed. I recommended that the small steamers should be sent in sections and put together there. If I had received orders to get hospital steamers ready in the rains I could have had them ready in 7 months unless the supply of material from England had been delayed and I could have built them to any specification required. If such orders had been received I would have placed the order with private firms and in Kidderpore Dockyard.

Letter from Brigadier-General A. C. Lewin, Commanding 40th Infantry Brigade, to Sir William Vincent, dated 26th May 1916.

In reply to your letter of 11th instant. My personal experience of the adequacy of the medical arrangements in this Force is limited to the operations which

took place from April 5th to present date, and is confined to the collection and tending of the wounded on the field of battle until their evacuation from regimental aid posts. I understand, however, that the Divisional Commander (Major General Maude, C.B.) has already sent you a report as to the subsequent arrangements for the disposal of the wounded. This Brigade has suffered over 1,300 casualties in two actions and notwithstanding the very heavy strain entailed by these severe casualties I am glad to have the opportunity of testifying to the excellent work carried out by the Medical personnel in collecting, dressing and evacuating the wounded from the zone of fighting, frequently under heavy fire. Their work was rendered especially difficult by the numerous casualties to stretcher bearers. In one Battalion alone 13 out of 16 bearers were wounded whilst in the discharge of their duties.

In the absence of an armistice for the purpose of collecting the wounded, I am satisfied that as far as was humanly possible nothing was left undone to ensure their safety and comfort.

As I said previously, I am not in a position to criticise subsequent arrangements for the disposal of the wounded. I have, in common with others, heard of various complaints of unnecessary discomfort but no direct representation on this point has yet reached me from any individual under my command and doubtless your Committee is in a position to obtain first-hand evidence in this matter from those directly concerned.

The only point which strikes one as apparent here is a lack of river transport for the sick and wounded, but considering the difficulties which present themselves, this can scarcely be wondered at.

As regards the arrangements for the coming hot weather, I consider that the provision of ice machines, soda water machines, electric fans together with cool accommodation is not only advisable, but most necessary; especially if it is borne in mind that a large number of sick may reasonably be expected in a European Division such as this, for the most part composed of men totally unaccustomed to the climatic conditions which prevail in Mesopotamia, and which will prove especially trying to any reinforcements that may arrive from England from time to time.

Letter from Brigadier-General G. Christian, Commanding, 36th Infantry Brigade, to Sir William Vincent, dated Magasis, 27th May 1916.

Reference your letter dated 11th May 1916, Basrah, No. 97-109.

As I have been asked to give my criticisms and comments on the points raised by the Medical Commission, I have drawn up the following brief remarks dealing with the few essential matters brought to my notice as Officer Commanding, No. 36 Brigade, Indian Expeditionary Force "D." In the Field under present unfavourable conditions it is impossible to do more than refer briefly to a few leading points.

In my opinion, no inquiry of the kind now in course, should neglect to consult the "War Diaries" of medical units. A general invitation such as appeared in orders, to the effect, that anyone wishing to communicate with the Commissioners, who had not had an opportunity of so, doing might convey their remarks in writing, is not likely to induce officers to come forward; any more than a general invitation to an unknown person to come to dinner, is to be regarded as any more than a polite civility. Hence the officers of a combined field ambulance who were in a unique position to give information, but were not asked to do so, have not responded. This neglect to ask for information from the source best calculated to give it, is not an ordinary procedure in other matters, so I can only imagine that the omission was intentional.

The following points are those which strike me as likely to be of most interest in this inquiry:—

"A" Sanitation.—In the matter of practical sanitation and prevention of disease, there has been little organized sanitation at all. I clearly recognize that perfection in these matters has to yield to military expediencies; but can this be pleaded as an excuse for entire absence of water carts, pumps, pipes, filters, and chemical purifiers? In view of the coming hot weather could not units have

been provided with water carts before the middle of May? Many men were sent down the river for colitis, and many more incapacitated temporarily from this cause which was largely attributable to bad water.

I consider that at standing camps such as Orah an oil engine with proper pumps, etc., would not have been an extravagant investment. Instead of this, with great difficulty a few ounces of alum and permanganate of potassium, were sometimes available, where such chemicals should have been served out by a skilled staff in hundredweights! Attempts were made to saddle units with all the responsibility in this matter, which is a price of mal-administration, which would have been culpable in the days of Alexander.

The absence of water carts and of general "water plant" at a standing camp and the inadequate supply of purifiers, pakhals, and chagals, all appear to me to be inexplicable omissions under even normal circumstances.

On the march to the shrine of Imam-al-Mansur on the 20th instant, to say that fifty per cent owing to shortage of water, directly or indirectly, did not finish the march requires little exaggeration. Many British officers were in the like plight. The pathos of the scene was that of any battle-field, the misery endured probably more. Can it be wondered that several hundred men fell out contrary to orders, and drank from the stagnant marsh at Dujailah? The medical officers of units fondly hoped that the field ambulances coming along with the transport would bring aid, but the ambulances themselves were no better off.

"B" Transport.—It is really hardly necessary for me to point out the deficiencies both by land and river in this respect.

The constant removal of transport from ambulances means that many of these units are immobilized, and cannot accompany the Brigades to which they are attached, while from the river side they were also immobilized because they could not evacuate their cases. When it appears therefore that there are a certain number of these units in Mesopotamia, it must be recognized that many of them are not functioning as such, and probably their place is taken by one or two sections of another ambulance. A totally wrong impression of the efficiency of medical arrangements is thus produced.

I can quote the following instance.

No. 20 Combined Field Ambulance was originally attached to the 35th Brigade. Owing to the immobilization of No. 21 Combined Field Ambulance this ambulance is split up, one half being with the 35th Brigade while the other half is with the 36th Brigade. The efficiency of half an ambulance is not nearly half that of a whole unit although it sounds paradoxical.

The dearth of river transport has been such that supplies have been exceedingly scanty. It has been very common that the daily ration issued has altogether been short, while extras on payment have practically never been available for officer or man. I do not refer to luxuries, but such things as soap, milk, etc., even firewood, so as to give the hospital patients baths, has not been available.

I am told that the ambulances of the 3rd Division arrived in Basrah in January, but the transport was only received a few days ago. During this time the sick and wounded were conveyed in army transport carts which are springless vehicles quite unsuited for this purpose.

The Medical Officers had no chargers and had to march, arriving tired and quite unfit to undertake the arduous work which generally falls to ambulance officers when the day's work for others is over.

"C" Rations—Something has been said on this point and I would merely add here that I consider milk out here should be added to the rations of a British soldier, also some form of fruit. It not infrequently appeared in orders that certain extras were available which on application were not forthcoming. It is necessary that this should be known if a true estimate of the situation is to be arrived at.

The point of view of an officer or man living solely on rations and that of another who has managed to obtain milk, fruit, etc., is widely different; just as the outlook from the comfortable deck of a steamer is different to that of the wounded man lying in the mud soaked to the skin. Of course, there are standards of luxuries as well as standards of intelligence, and it is not suggested that all should be alike.

We have however been accustomed to give preference to sick and wounded in matters of food and accommodation. There are at present British sick in our ambulance under single fly tentage, while others who are not sick at all are

accommodated in E. P. tents. I am told that many of the sick are cases of heat exhaustion.

"D" *Obtaining Articles on Indent.*—This has been an unexpected difficulty for which it has not always been possible to account.

"E"—*Splitting up of an Ambulance.*—This has been already referred to. It is a slightly technical matter requiring explanation.

An ambulance composed as No. 20 Combined Field Ambulance, which is to take in both British and Indian consists of one British section supposed to accommodate twenty-five patients and three Indian sections to take twenty-five each, making a total accommodation of one hundred. This composition of a field ambulance has been found to be convenient as each Brigade out here consists of one British and three Indian Battalions. It will easily be seen that, although two Indian sections can be split off to act independently there being only one British section, such an ambulance can only be divided into two halves, each capable of taking in British cases, by dividing this section, which ordinarily is not intended to be so divided. The personnel does not permit of it, nor does the equipment.

At present the ambulance attached to the 36th Brigade is so split and is acting where two such ambulances are required, namely with two Brigades.

Up to the 19th of this month this ambulance was taking in both British and Indian and the former sometimes numbered 50 with on one occasion five British officers. Even allowing that a British section is divisible at all it had to take in four times its right number and consequently the attention bestowed on an individual was such that he was at a great disadvantage.

"F" *Conservancy.*—Is not good. Flies breed everywhere and everywhere one sees litter partially burnt pouring out its contribution by the million. Latrines unfilled and disused trenches used for latrines.

Incineration is the only practical way dealing with the fly question in the Field.

I have been with Regiments in India who always carried, on their second line transport, two or more folded incinerators made of thin sheet iron. These with bars occupy but little space, are light weighted, inexpensive, do not go out of order, and work satisfactorily. Incineration was always begun within a few hours of arrival in camp.

"G" *Question of leave.*—In conclusion now, defects in sanitation contribute greatly to the large sickness roll, but the appalling monotony of life in Mesopotamia must be regarded as a powerful predisposing factor. Frequently not a tree, not a house, nor a hill, nor even an inhabitant is seen for weeks on end; every day there is the same petty difficulty about water supply, sanitation, and other worries. So far as we can see, only the end of the hot weather will bring relief from the flies and heat, and only the end of the war from the dirt and general discomfort. Can it be surprising that men, and even officers, welcome sickness as a possible means of escape? Prospect of leave on the other hand will keep a man fit when he might otherwise succumb.

It seems to me that at the present moment when officers are going sick by the score and men by the hundreds it would be a more conservative measure to reduce the strength of the Force temporarily by opening leave, than permanently by allowing this drain to continue unchecked.

Copy of a letter from Lieutenant-Colonel Chesney Cook, Officer Commanding, 7th Hariana Lancers, to Sir William Vincent, Basrah, No. 256-P., dated Camp Gomorrah, the 9th (received 31st) May, 1916.

Reference Force Routine Order No. 649, dated 27th April, 1916.

I should like to bring to notice that from and including the operations at Shaiba, no provision whatever has been made for the removal of wounded men of the Cavalry Brigade from the firing line.

2. During all these operations I attribute the deaths of several wounded men to the fact that they had to be brought in on spare horses when suffering from body wounds.

3. A particular case of unnecessary suffering is that of the late Lieutenant W. J. Coventry, who when wounded in the lower part of the abdomen, had to be brought in about 6 miles to Camp at Ali-al-Gharbi on an army transport cart the shaking of which caused him so much pain that he had to be carried in

4. In March of this year the regiment was provided with an experimental Mysore ambulance cart for trial, but this broke down in use, and at present army transport carts, with the iron band flooring replaced by "Newar," are being used.

As these carts are devoid of springs it cannot be considered a satisfactory arrangement.

5. In my opinion motor ambulances can move anywhere in this country, where guns can go, and would solve the difficulty of removal of wounded.

At the battles of Kut-al-Amarah and Ctesiphon and in the retreat from there machine gun motor cars were the only means of saving many wounded and exhausted men, who otherwise must have been abandoned.

Statement of Captain R. B. de La Motte, Supply and Transport Corps, dated 27th May 1916.

Reference your No. 67, dated Basrah, the 30th April 1916, I have the honour to bring the following to your notice.

During the period of the advance towards Nasariyah I took up supplies from Asani Camp to the firing line, under cover of darkness, for both left and right banks of the rivers.

After unloading stores, sick and wounded were conveyed back to the field ambulances which were in charge of Colonel Jennings, I.M.S., who always met me, no matter what time of night.

There was no medical officer with the wounded during these journeys.

On the night of the 24th July, four hours before the final attack, I received orders to collect the men's kits which had been quietly placed along the banks of the river, with instructions to return by 5 A. M. At about 4 A. M. (my last trip back to camp) I took back 2 badly wounded men conveyed in blankets without any medical attendants. They had received first aid and one of them was bleeding badly. I also took back some 200 Indians suffering from so-called "fever," commonly called "cold feet." I feel Colonel Jennings would back this statement and had the regimental medical officers of Indian units realized that these men were evading work on the trenches, the work of the field ambulances would have been much lighter.

There were no tents at the dressing station. Some Arab huts were available for cover but they were pitch dark and probably infested with fleas.

My head clerk's eyesight requires to be re-tested but owing to there being no facilities on the spot, Bombay is the nearest place at which he can have them seen to.

Letter from Lieutenant B. W. Richards, I.A.R.O., 7th Lancers, to Sir William Vincent, dated 27th May.

May I bring to your notice that up to the moment, the Indian troops in the 6th Cavalry Brigade are without summer clothing, and though our Indents have been in some months we cannot get any satisfaction from the Supply and Transport. I point this out to your Commission, as I think that it is a cause of sickness for the troops not to be suitably clothed for the hot weather.

Letter from Sir William Vincent, Medical Commission, to the Director, Medical Services, Indian Expeditionary Force "D," No. 111, dated Basrah, the 13th May, 1916.

A statement has recently been made to the Commission which should be brought to the notice of the Director, Medical Services, without delay. It has been alleged by a responsible officer of the medical service that the wounds of a number of Indian patients brought down from the front on the 23rd April had not received proper attention before the men were placed on the barge on which they were conveyed down the Tigris, that their wounds had not been dressed for several days and that when the dressings of three patients were removed the wounds were found to be in a greatly septic condition—one being a mass of maggots and a second case suffering from gas gangrene. It is further stated that on enquiry it was ascertained that the wounds of these three persons had not been dressed for four days. The wounded of this convoy came from two field ambulances—Nos. 21 and 22—and though our informant was not able to state definitely from which field ambulance these cases came, he said that he believed

that the undressed wounds came from No. 22 Field Ambulance. He added that on arrival at Amarah he had reported these facts to Colonel Nott, S. M. O. of the Indian Hospitals there, and that the patient with maggots in his wound, Sepoy Sikander Khan No. 2281 of the 89th Punjabis, was evacuated at Amarah into No. 12 Indian General Hospital. The Commission consider that enquiry should be made without delay to ascertain the facts in these cases and they would like to know the name of any officer found to be responsible for the condition of these patients. As the Commissioners are leaving Basrah for India early next week it is suggested that the required information might be obtained by wire.

Letter from Surgeon General F. H. Trehearne, D. M. S., I. E. F. "D," to Sir William Vincent, Medical Commission, Simla, No. A-13-77, dated 1st June, 1916.

Reference your No. 111, dated 13th May 1916. I have made careful enquiries and forward to you (1) a telegram from the Deputy Director, Medical Service Corps, which tends to prove that "Sepoy No. 2581 Sikandar Khan, 89th Punjabis," was admitted to No. 22 Combined Field Ambulance under Lieutenant Kapur, I.M.S. He was evacuated to Amarah and admitted to No. 12 Indian General Hospital.

I attach (2) a copy of a telephone message from Captain P. S. Mills reporting on this sepoy, stating there were no maggots in wound or dressings. Also (3) a copy of a statement from the Officer Commanding, No. 12 Indian General Hospital.

This sepoy was sent to Basrah on April 26th, admitted to No. 83 Stationary Hospital : and transferred to Karachi on Hospital Ship "Sicilia" on 4th May 1916.

(1) *Copy of a telegram from the D. D. M. S., 3rd Indian Army Corps, to the D. M. S., Force, No. M-985, dated the 17th May, 1916.*

N.-13-40. All cases from 21 C. F. A. were carefully dressed before embarkation. No. 2281 Sepoy Sikander Khan, 89th Punjabis, did not pass through this unit. Officer Commanding, No. 22 C. F. A. reports a sepoy No. 2581 Sikandar Khan, 89th Punjabis, admitted to his unit 18th April along with a number of other cases and put in ward with slight surgical case under Lieutenant Kapur, I. M. S. This man and 74 others were evacuated 22nd April on P. 7. All were believed to be slight and Lieutenant Kapur believed all who had been in hospital for 24 hours had been re-dressed unless this appeared to be unnecessary. P. 7 sailed 9-30 A.M., 22nd April. Officers responsible Lieutenant Kapur, I.M.S., No. 22 C.F.A. and Officer Commanding, No. 22 C. F. A.

(2) *Copy of a telephone message from Captain P. S. Mills, I.M.S.*

No maggots in wounds or on dressings when case admitted.

(3) *Copy of a letter No. 640, dated 24th May 1916, from the Officer Commanding, No. 12 Indian General Hospital, to the A. D. M. S., Line of Communications.*

Reference your letter received this morning about No. 2581 Sepoy Sikander Khan, 89th Punjabis, I have ascertained the following details :—

I.—Wounded on 17th April 1916. Transverse wound through the calf—septic—much oedema of foot—tube put in—sandbags—Probably 'C' case.

II.—Admitted into No. 12 Indian General Hospital on 23rd April 1916 off "P. 7." Tube put in for 48 hours.

III.—Note on 25 April 1916. Cleaning up for Basrah.

IV.—Evacuated to Basrah on 26th April 1916 on "P. 19." In the opinion of the Officer Commanding 'E' section of this hospital he was a

Statement of Captain S. J. Barry, R. A. M. C., on the medical arrangements in the Field in Mesopotamia.

Left Poona with Colonel Donegan's Field Ambulance in command of 'B' section, No. 16 British Field Ambulance on 17th November 1914, arrived Fao 1st December 1914, and landed at Magil on 10th December 1914. Here we opened out to receive British sick, forwarding any serious cases not likely to be well within ten days to General Hospital Basrah by paddle boat. Early in January we cleared our field ambulance and moved up to Mezerah (opposite Kurnah). Here again we opened out to take in sick. Any requiring treatment in Basrah were sent down river on the paddle boats in charge of the Clearing Hospital. At this time we were 4 sections, British Field Ambulance—two in Kurnah and two in Mezerah.

On 20th the 17th Brigade and Norfolk Regiment moved out to attack the Turks at Rotah. The medical arrangements were as follows:— Colonel Donegan, R.A.M.C., was Senior Medical Officer of the force. Major Baines, I. M. S., was medical officer in charge field ambulances (two sections British and four Indians) Two British sections, No. 16 British Field Ambulance and four Indian on land, and one section British Field Ambulance and one Indian Field Ambulance on board S. S. "Mejidieh," which ship had two 18-pounder guns on board and was to be used as a fighting ship, but if circumstances permitted, was to be used as a clearing hospital. As a matter of fact it was found impracticable, as the river bank was not suitable and the distance from the fighting area too far (about 3 or 4 miles). Our casualties were 57. All the wounded were carried back on stretchers (6-7 miles) and arrived back in camp by 3-30 P.M. All necessary operations and dressings were completed by 6 P.M. the same evening. We had 50 riding mules with us for wounded, but these animals were very restive and not suitable for wounded men to ride upon. Dressings and drugs for this action were ample.

The cases suitable for transfer to the General Hospital were despatched down next morning. A few nights after this the Turks made a night attack on the camp at Mezerah. There were 4 British casualties which were dressed immediately and despatched to Basrah next morning. Shortly after this we were formed into a mixed field ambulance, 2 sections British and 3 Indian, and crossed over with the Force to Kurnah where we again opened out to receive sick. The sick now rapidly increased, mostly malaria and colitis. In April cases of heat-stroke began to occur. We had an arrangement whereby ice was sent up the river from Basrah by paddle boat every third or fourth day. Ice boxes had been issued to us. At the end of May it became intensely hot, and heat-stroke cases were very numerous; also at this time cases of scurvy began to appear among the British troops. Orders were issued that the Force was going to advance on the Turkish position at dawn on June 1st, 1915. Two days before this reinforcements (16th Brigade) arrived and owing to the intense heat our field ambulance was very full. Two sections of our field ambulance (No. 1 Field Ambulance) were left behind to look after the sick and Colonel Donegan with one section British (my section), and one Indian proceeded behind 17th Brigade on right bank of the river in *bellums* and one section Indian Field Ambulance with Captain Cruikshank, I.M.S., on the left. The advance had to be made in boats as the land was completely under water. The field ambulance took in *bellums*, besides usual dressings and equipment, ice in bulk and in thermos flasks (for heat strokes) and food and soda water for the wounded and also some khaki umbrellas which had been given us by the Red Cross in Bombay. The dressing station chosen was the Turk's 1st position Norfolk Hill, where we had to hand over the wounded to Colonel Henessy's Field Ambulance. The position was taken. Our casualties were small, about 21 for the whole day, and we handed over the wounded (our own and the Turks) to Colonel Henessy who was supplied with two *mahailas* covered in by reeds for use as hospital ships for evacuation of the wounded.

Next day there was no fighting and we arrived at Bahrein. The same night we embarked on a paddle boat and early next morning proceeded up river. Having arrived at Ezra's Tomb I was ordered to proceed up river in charge of

Major Lambert's section of field ambulance with Norfolk Regiment and in the event of arriving at Amarah to open a hospital and take in all sick and wounded. On arrival on June 4th, I was ordered to take over the old Turkish Hospital. I found it had been recently looted by Arabs and was in a very dirty state, bottles broken, window frames wrenched out and lying among debris of half burnt mattresses were a few wounded Turks. Before we had finished our cleaning the sick began to arrive and that night about 40 were in hospital half of them cases of heat-stroke; next day I found out that in another building in Amarah there were 32 Turks suffering from typhus and typhoid. Owing to my wanting all my personnel to look after our own sick I made an arrangement whereby an Egyptian Doctor who had a civil hospital in Amarah took these infectious cases into his hospital. That night I had 60 patients and in the morning this rose to 100. Most of them malaria or the effects of heat. Ice at this time in Amarah was not procurable as the ice machine found in Amarah was not at the moment in working order. The fourth morning after my arrival Colonel Hennessey arrived with his field ambulance and took charge of Hospital. I remained working under him until about June 15th, 1915. During this time heat-strokes were very numerous, 14 to 20 being admitted every day. I was then ordered to proceed down river to Kurnah to relieve Captain Wilson, R.A.M.C. On arrival I took over from Major Roberts, I.M.S., Captain Wilson having left before I arrived. Major Roberts proceeded up to Nasiriyah, and I was left in charge of about 400 patients mostly malaria, and a few cases of dysentery and heat-stroke. I tried to evacuate them to Basrah, but could not get any boats as the advance on Nasiriyah had started when I arrived, and found quinine very scarce, so wired for some to Senior Medical Officer, Basrah, who stated that some had been sent, but Supply and Transport could not trace it; consequently for four or five days none was available. During this time the weather was intensely hot. The reed huts for patients had been fitted with punkhas, and Arab coolies were employed to pull them. Ice was despatched from Basrah about twice a week and soda water was made by the plant attached to field ambulance at Kurnah and issued to patients. While here I managed to evacuate on a boat proceeding to Basrah about 70 patients. Under orders I handed over to No. 126 Field Ambulance and proceeded to join my ambulance at Amarah about July 1915. On arrival at Amarah, I was detailed to work with Colonel Hennessey's Field Ambulance (No. 2) which had opened out in buildings and was acting as General Hospital, as the Hospital at Basrah was full, owing to the casualties of sick and wounded from Nasiriyah—At the end of July I rejoined my own field ambulance and early in August proceeded up river with Colonel Donegan, R.A.M.C., and my section to Ali-al-Gharbi with the 16th Brigade. The Turks occupied a position on the way up at Filifilah.

The Brigade landed and moved out to attack. One bearer sub-division accompanied them in charge of my assistant surgeon. The Colonel and myself formed a tent division on board a paddle boat. The Turks fled before our troops got near their position and there were no casualties. We had also on board the personnel of one Indian section less the Medical Officer which was kept in reserve in case of necessity. On arrival at Ali-al-Gharbi the two sections opened out as Hospitals for British and Indians respectively. Major Walker, I.M.S., and Lieut. Patel had remained behind in Amarah and Captain Wilson also of No. 1 Field Ambulance had gone down to Nasiriyah with his section. The houses chosen for Hospitals were two of the best in Ali-al-Gharbi. Cases likely to recover in a few days were kept at Ali-al-Gharbi, the others were evacuated when the Brigade notified that a boat was available to go to Amarah. These boats had to be supplied with a staff formed by the field ambulance, (usually one assistant sub-assistant or surgeon, one orderly ward servant, and sweeper) and medical equipment by the field ambulance. It was in this month that the 20th Punjabis had 33 cases of heat-stroke while marching back into camp from a reconnaissance in force against Arabs about 5 miles march from camp. Three of our bearers also got heat-stroke that day, one of them dying. These cases occurred between 10 A.M. and 11-30 A.M. Ice was not procurable or issued in Ali-al-Gharbi. About the middle of September the Force moved up to attack the Turks at Kut. Three sections of our field ambulance went by land and my section and one Indian with Colonel Donegan by boat. This boat was

to be used as a hospital ship. It had no special fittings or equipment as such and the deck was covered by a very old threadbare single awning. We had no instructions that we were to act as such until we got on board. The evening of the 1st March, sick were brought to us by the field ambulances proceeding by land. About the second day we eventually managed to get large tarpaulin sheets from the Royal Engineers and hung them over as awning to keep the sun out, which was still very powerful. We took sick on each evening and by the time we reached Sannaiyat were full up. Here I got an attack of fever and was sent down to Amarah by boat next day. From Amarah I went down to Basrah to have my teeth seen to; and rejoined my Ambulance at Aziyeh about November 15th. A few days later we proceeded to advance on the Turkish positions at Ctesiphon. 22nd November at dawn the attack on the Turkish position began. Of our field ambulance, Captain Wilson, Captain Mallan and myself went out with our bearer sub-divisions and proceeded behind the 17th Brigade. Colonel Donegan and Captain Cruickshank were in rear of us acting as Tent Division. We advanced for $1\frac{1}{2}$ miles and then Captain Wilson with a small staff and the mules decided to form a collecting station in a small nullah. Captain Mallan and myself with three bearer sub-divisions proceeded forward to collect wounded. The area over which we had to work was a very wide one owing to the flanking movement of the 17th Brigade (about 4 miles wide). We reached the first aid posts and found a large number of wounded here and more lying scattered all over the field, so decided to collect all the wounded in to this trench for safety as the Turks were both shelling and sniping all over this part of the field. We had two casualties here among the bearers, one shrapnel and one bullet. We sent back a bearer to Captain Wilson telling him what we had decided, but owing to heavy shelling he had had to evacuate his position, and the bearer could not find him. As regards this, from my experience I consider that if two or three bearers in every section were able to signal it would be invaluable as regards keeping the different sections in touch with one another, for sections of a field ambulance are often some distance from one another owing to the wide area covered by the Brigade. The bearers worked splendidly all day and well into the night, very often carrying cases two and three miles. We eventually, that evening, had to carry all our wounded from the area over which the 17th Brigade had advanced by stretcher to a road about $1\frac{1}{2}$ miles to our right on which our army transport carts were—(owing to the nature of the ground, it was found impossible to move the carts off the road for the transport of the wounded). On arrival at the road we found the carts were already filled to overflowing with wounded, so we laid our wounded by the side of the road and prepared to camp there for the night. Owing to Arabs, as we had no guard, we applied and got a half double company to act as such. We had about 500 wounded in this camp and wounded continued to come in during the night. Owing to the large number of casualties we were short of blankets and food and water. At first we had none as our pakhal supply was exhausted and the river was three miles away. We had just decided to send our water cart under a small guard of our own staff to the river as water had to be got at all cost, when a message arrived from Colonel Donegan who was camped about 1,000 yards ahead of us, saying there was a ditch with water near his camp. We therefore sent the cart off there and thus got water but very muddy it was. During that night we dressed and attended the wounded and gave them hot drinks of milk and beef-tea. We also added to our stock of food by pooling the men's emergency ration and using the emergency ration taken off the dead. It was a cold night and we endeavoured to keep the men warm by using everything even to the mules rugs and canvas sheets out of the carts to cover them; also by laying the wounded close together in a circle we found it possible to cover a large number with the canvas walls of our tents. We found by this means we would be able to keep a larger number covered and warm, than by pitching them. Next morning we continued bringing in wounded. The water problem was becoming more acute as the Turks had dammed up the ditch and the water now was pure mud. In the afternoon of this day the Turks advanced and we had to evacuate very hurriedly. Every man who could possibly walk did so and the carts had four to six people in every one (40 to 50 carts). We were told to proceed to a position on the river bank where the camp would be formed but found this impossible

with the carts, owing to fairly dense camel thorn scrub and numerous sunken ditches. So, as the Turks were close (about a mile away) and were shelling heavily we proceeded by the road, hoping to find a track to the proposed site of the camp. After we had gone about two miles it became dark and we did not know where this track led, so we decided to halt and form a zareba with the carts and placed the wounded inside. The Turks were attacking heavily our camp about a mile and a half behind us. We had no guard with us but met 5 sowars who had lost their way and these we kept and with the help of about 15 lightly wounded men posted sentries around outside the carts, as we were afraid of being attacked by Arabs. On this account we could light no fires. Part of the cavalry field ambulance had joined us with a convoy of wounded. So we had roughly about 800 wounded. We had brought some water from the ditch in our canvas water cart and also some milk and brandy and issued out drinks to every wounded man until our water was exhausted. Next morning a troop of our cavalry found us and showed us a way by which we could join up with a convoy of wounded going into Laj with a cavalry escort. After going across very rough country for about a mile we joined the convoy on the road to Laj. This was a particularly painful part of the journey for the wounded, as the carts had to be taken through numerous little nullahs filled with soft sand at a canter to enable the mules to get through and up the other side. The wounded were magnificent. The lying down cases in the carts bore their hardships with great fortitude, as did the lightly wounded who walked the 9 miles to Laj. Every horse and mule we could lay our hands on were used for the lightly wounded, but in spite of this there were a large number who had to walk. On arrival at Laj food had been prepared in anticipation for the wounded and we immediately set about dressing them. Some were placed on boats and barges that day and sent down river. Next day I spent until about two in the afternoon loading wounded on to boats and barges, and was then ordered by the Surgeon General to proceed down river on S. S. "Julnar" in charge of the British wounded. There were about 350 British and 400 Native wounded on boat and barges. Captain Cruickshank, I.M.S., was in charge of Indian wounded. Owing to the large number of wounded and the immediate necessity for their evacuation the staff given me was small—one assistant surgeon, two nursing orderlies, one ward servant, two sweepers, and three bearers. Of these one of the nursing orderlies I put in charge of the food and he acted as cook. He could do nothing else, as all day he was going hard to cope with the food and hot drinks and had to see that the hot water was available up to late at night. The bearers were used for all sorts of work. The ward servants took round food and drinks. On the way to Kut we entered a very rough stretch of river and the waves were so big that they washed clean over the wounded lying on the fore part of the barge. Luckily on our rounding the next bend in the river the waves subsided. The men could not be moved from where they were as there was no other place to put them. There were no spare blankets. I tried to make the best of an unfortunate occurrence by issuing hot drinks and covering the men with hay while their blankets were being dried in the engine room. On arrival at Kut several bad cases were sent into hospital here needing urgent and more attention than we could give them. Here food had been prepared for the wounded and any further rations needed for the journey down were supplied. We left Kut and proceeded down to near Shaikh Saad, where we met a boat who reported that hostile Arabs and Turks were holding up the river near Shaikh Saad. We returned to Kut. Next morning we proceeded down again in company with four other boats. As we had a lot of bhoosa bales in one of the barges, we arranged these two deep around the deck of the ship, to protect the wounded. We were attacked by the Arabs and after about three hours fighting returned again to Kut. Next day we returned again and got through. On arrival at Amarah several more cases from the ship were sent into Hospital there and we again proceeded on our journey to Basrah. As regards this journey—

(1) We took a fortnight coming down to Basrah.

(2) The Staff were very much overworked owing to the small personnel and number of wounded.

(3) The feeding was a difficult question as these paddle boats could only allow us the crews galley at certain hours. There happened to be a Persian heater on boat and this was invaluable for heating water for hot drinks.

(4) The sanitary arrangements were unsatisfactory there being only one lavatory. Also most of the cases were lying down and the sweepers were going night and day to cope with the demand.

(5) With regard to the dressings we dressed the bad cases first and owing to the number it was the third day before the slight cases were or could be touched. The wounded owing to the time taken in coming down the river and also the above-mentioned reasons had a very trying journey. The days were fairly warm but the nights at this time unfortunately were very cold. Every man had three blankets, but one of these had to be folded under him to act as a mattress on the deck or on the barge. Owing to the cold I issued a stiff brandy to the wounded every night. On arrival at Basrah we put the wounded straight on to a hospital ship. Our ambulance having lost all its equipment at Ctesiphon (during the retreat we had to empty our carts of equipment to enable us to carry our wounded) was ordered to proceed to Makina Masus and await fresh equipment. After being there about six days Captain Cruickshank and myself were ordered up to Amarah with our sections, less the bearers, to do work in Amarah General Hospital. We were there for four days and received orders from A. D. M. S. to get together the equipment of two field ambulances (3 sections in each field ambulance) at once, as we should be moving off in two days' time to Ali-al-Gharbi for the advance on Kut, the reason being that the Meerut or Lahore Division field ambulances had not, and would not, arrive in time for this advance. We had to borrow what we could in the way of equipment from the General Hospital in Amarah, there being no Advanced Medical Store Depôt in Amarah. We got ready as much as we could get. For stretchers, the Royal Engineers made some out of canvas and bamboo poles. These proved not a success, as the canvas tore away from the poles on their being used. We had to augment what we got in the way of dressings from the Hospitals by buying calico in the Bazaar to make bandages. This made very poor bandages but was the only stuff procurable. Our store of drugs was also very limited. As bearers we were given 30 sepoys to each section. Our other personnel was incomplete. In my section instead of having two assistant surgeons and two nursing orderlies, I had only one of each. My Army Hospital Corps men were as follows:—One cook, two ward servants, one bhisti and two sweepers. Out of these, one ward servant and one sweeper went down with fever after the first day's march. Altogether as a field ambulance we were far from efficient. Our field ambulance which was called No. 6 Improvised was detailed to move to Ali-al-Gharbi and in the advance on Shaikh Saad was attached to the 21st Brigade. We left Ali-al-Gharbi on 4th January with only two army transport carts for wounded per section instead of ten per section which number we had asked for and were promised. The matter was reported to the A. Q. M. G. but no more transport could be spared us. On January 7th about 1-30 P.M., the 21st Brigade went into action. We were about this time about four miles from the river bank. Captain With, R. A. M. C., and Lieutenant Cawasji, I. M. S., went out with bearer sub-divisions and I stayed with the carts and acted as tent sub-divisions. The Brigade had only advanced 400 to 500 yards before they were in action. The wounded soon came pouring in. Owing to the shortage of carts every man who could possibly walk was directed to walk back to the boats on the river bank, (about four miles). I very soon filled my six army transport carts with wounded and sent them back in charge of a nursing orderly with an urgent message asking for more carts to be sent out to me. As the wounded came back to me they were dressed and, if unable to walk, waited for carts. Mattresses were placed in the bottom of a good many of the carts. Any carts going back to the river were used to evacuate the wounded to the river bank. I did not like to keep the wounded longer than absolutely necessary, as there was no cover and we were exposed to shell fire. Some carts arrived out about 1½ hours after the first convoy had gone in and, with these and empty ammunition waggons which I commandeered for the purpose, I managed to bring back all the wounded from my tent sub-division to the river bank. I brought them back to the river as we

were in a very exposed position as regards Arabs and night was just coming on. I arrived on the river bank just as it got dark and reported myself to the A. D. M. S., who ordered me to take over charge of the British wounded on river bank until Captain With, R. A. M. C., arrived. Tents had to be pitched. This was a big item in itself as owing to the large number of wounded about 150 had to be pitched and also food had to be got ready. The work in this respect was so great that very few dressings could be attempted that night. The wounded kept coming in all night long. The Medical Staff and personnel had to work day and night for days on end and even then they could not cope with the amount of work there was to do. If the wounded could have been evacuated by boats speedily from this camp their hardships would have been greatly minimised, but as it was a large number stayed for a fortnight in this camp where dressings and medical staff were very short, and were then being evacuated forwards to Shaikh Saad, where the conditions were very similar. The weather too unfortunately at this time was very wet and cold. On arrival at Shaikh Saad, Captain Ellcome and myself were placed in charge of the British wounded here (about 700), Captain Thomas, I. M. S., and Lt. Cowasji, I. M. S., being in charge of the native sick and wounded (about 1500). The tents in this camp had to be pitched very close together as the camp perimeter was a small one. The latrines to accommodate wounded men had to be dug fairly near the tents. The sanitation of the camp was very bad. We had so much rain that the original site of the latrines was turned into a huge pool. In spite of the fact that latrines were dug and patients instructed where, and sentries posted, nuisances were committed at night outside the tents especially among the natives. In this camp also were 600 Turkish prisoners. While here Captain Thomas, I. M. S., went sick and was sent down river. Next Lt. Cowasji was sick, so Captain Ellcome, R. A. M. C., detailed me to look after Native side of the camp. Two days afterwards the Indian Stationary Hospital arrived and took over charge. Two cases of typhus occurred among Turkish prisoners and then our wounded were evacuated down river. I proceeded down in charge of British sick and wounded on one boat. We had a bad journey down as it rained very hard and it was impossible to keep every one dry. We took on the journey 4 days down to Basrah. On arrival there I was sent back to India in charge of 600 lightly wounded sepoy on a hospital ship. The Medical arrangements on board ship were quite satisfactory and I had an uneventful voyage.

Replies to Questions specially asked for.—*

A. I was not at Fao. My first action was at Rotah Creek on January 20th, 1915. The resources of medical personnel and equipment were very much strained in the big actions of Ctesiphon and Shaikh Saad especially the latter. There were no specially fitted Hospital Ships or barges on the river for evacuation of the sick and wounded.

B. There were defects in treatment, collection and removal of wounded in the actions of Ctesiphon and Shaikh Saad owing to the very large number of casualties. The personnel were working day and night to try and cope with the work to be done and the dressings had to be used with care. These remarks especially apply to Shaikh Saad as two of the ambulances there were the improvised ones, I have referred to in my report. Captain With, R. A. M. C., and myself were in charge of 600 British wounded, a large percentage being badly wounded.

Our personnel were—

Captain With's Section.

- 1 Assistant Surgeon.
- 1 British Cook.
- 1 Packstore Sergeant.
- 2 Nursing Orderlies (not trained).
- 2 Ward Servants.
- 2 Sweepers.
- 1 Bhisti.
- 30 Sepoys to act as bearers.

My Section.

- 1 Assistant Surgeon.
- 1 Native Cook.
- 1 British Nursing Orderly.
- 2 Ward Servants.
- 2 Sweepers.
- 1 Bhisti.
- 3 Bearers.
- 30 Sepoys to act as bearers.

We stayed in this camp a fortnight during which time we evacuated the wounded, some down to the base, and some on to Shaikh Saad. I then went up to camp at Shaikh Saad and with Captain Elicome, R. A. M. C., was in charge of about 500 British wounded here for also about a fortnight.

C. Transport by land and river was not sufficient in actions of Ctesiphon and Shaikh Saad.

D. We had no beds. A certain number of mattresses were available—two or three blankets usually were available for every man. Tents were erected whenever possible.

E. Food was a difficult problem as the personnel and equipment for cooking and distributing food was inadequate for supplying the large number of wounded in the actions of Shaikh Saad and Ctesiphon. The lightly wounded gave their help to assist in the cooking and distribution of food.

F. The sanitation was bad at Shaikh Saad camp, for reasons given in my report. Patients suffered from discomforts in camps they were in and lack of attention due to a shortage of Medical Staff and personnel. Army transport carts were used for transport of wounded on land. We could get no others and were often short of these. These are springless and caused much pain to the wounded. On boats and barges they suffered from exposure. The voyage from Laj to Basrah as I noted in my report took 14 days. Every Medical Officer with his staff and personnel worked with energy, resource and zeal under very trying circumstances. At Shaikh Saad we worked for 4 days and four nights without a wink of sleep. It was here that a native cook remained cooking and heating water day and night until he dropped from sheer fatigue into the fire.

G. The Medical Staff personnel and equipment at hand was not sufficient to deal with the large number of casualties which occurred at Ctesiphon and Shaikh Saad. The method of evacuation on river boats and steamers necessitated a great depletion in field ambulances on account of the personnel and equipment which had to be sent down with the boats from these units. As far as I know every Medical Officer worked with untiring energy, as did the personnel, and did his best under trying circumstances. I should like to point out that the field ambulances in the Gulf have been acting in various capacities during their service in the Gulf, viz., as Field Ambulances, Clearing Hospitals, Stationary Hospitals and General Hospitals (at Amarah). I submit that under these circumstances it is very hard to keep the personnel and equipment up to strength. At Ali-al-Gharbi we had about 60 sick in Hospital and were in charge of them up to the morning we marched out on the advance to Kut-al-Amarah. A Medical Officer from another field ambulance which was also advancing next day was then placed in charge of them thus depleting this field ambulance of a Medical Officer. I should also like to point out the difficulty as regards getting sufficient land transport for the evacuation of the wounded. Also the carts supplied were ordinary army transport springless carts which are very uncomfortable modes of transport for wounded men. Also it is physically impossible for bearers to make very many journeys if they have to carry patients for two miles or more. Captain Fraser, I. M. S., I believe, has invented a stretcher on bicycle wheels which is very light and can be carried over bad bits of ground. This would be very suitable and useful in Mesopotamia. Another point which I have touched on in my report and which I consider very important is the question of individual sections being supplied with signallers. If three or four bearers in every section were trained, communication could easily be kept up with the different sections, and the Officer Commanding the ambulance. As it was, we applied and got two signallers from the Brigade, but once the sections advanced, keeping in touch by signalling between the different sections was impossible.

Statement of Brevet Colonel F. M. Sloan, A. D. M. S., 3rd Division, to Sir William Vincent, dated 2nd June 1916.

My own experience of the campaign in Mesopotamia dates only from the time of arrival, from France, of the 3rd (Lahore) Division on the 6th January, 1916, at Basrah.

Although, whilst in Basrah, where two days were spent on board ship, I heard many stories from medical and combatant officers of the insufficiency of medical personnel, equipment and transport, leading to a breakdown in the collection, treatment and evacuation of the wounded, with consequent suffering to an extent hitherto unknown in these days of highly-trained medical services in civilised nations; still, it was not until proceeding up country that the true state of affairs came to my personal knowledge. From this time and for some months to come the adequacy, or otherwise, of medical services in the country can be gauged more or less by the fact that the word "improvised" was the prefix used for medical units, *i. e.*, for field ambulances, hospitals on the Lines of Communications and river transport used for evacuation.

The establishment of a field ambulance consists of five officers with eight medical subordinates and twenty stretcher squads; each squad consisting normally of six bearers, in addition to an establishment of nursing orderlies, ward servants, etc., etc. The usual establishment found with field ambulances of the Force in January consisted of two medical officers with possibly two subordinates and stretcher bearers varying from about twenty to fifty per unit, if it considered itself well found. The remainder of the personnel was in the same ratio—this was allotted to a brigade. In one so-called field ambulance the only stretcher bearers consisted of about thirty sepoys, who had been detailed for this duty *because they were not physically fit for duty in the firing line*. This personnel, when depleted by wounds or sickness, could not be made good, owing to the lack of medical reinforcements. In addition, when wounded were evacuated downstream the medical personnel sent in charge of them had, in the absence of a staff for the purpose, to be drawn from field ambulances.

The establishment of field ambulances for a division is five, *i. e.*, two British and three Indian, so that, not only were the units grossly deficient in their personnel, but, in addition, the number of units represented only three-fifths of the establishment laid down in regulations.

These regulations, again, were framed on the experience gained in small frontier wars and were deemed necessary to cope with the situation in such; but in a campaign against a modern, highly-trained European Army even the full establishment was bound to be inadequate, unless backed up by the most efficient means of evacuation. Knowing what the facilities given for evacuation were, and still are, the resulting condition of affairs was only what could have been expected, namely, congestion at the front—greatly aggravated during a rush after an engagement, and an inability of the existing medical services to deal with cases in a manner anything like approaching to the desired standard, as regards dressing of wounds, feeding and tending to the needs of helpless patients.

The ambulance transport of these units consisted of the army transport cart, which is without springs; has no cover to give protection against rain or the direct rays of the sun; and the bottom of which consists of bars of iron which, even when liberally covered with mattresses or other padding, renders the placing of a wounded man, especially cases of fracture, in such a conveyance a practice which can only be designated as barbarous and cruel.

The equipment, more especially the expendible equipment, such as splints, bandages, dressings, etc., was hopelessly inadequate for dealing with even a fraction of the cases during a rush, with the result that fractures were not fixed nor could dressings be changed as ought to have been done to prevent subsequent sepsis and gangrene, cases of which were the rule and not the exception.

Again, the supply of medical comforts, not to speak of rations, was totally inadequate and this had a very serious bearing on the subsequent condition of the wounded and their progress towards recovery. The condition of shock brought about by their wounds was greatly aggravated by exposure, on occasions, to severe weather conditions and the first essential to combat this is common knowledge that many men succumbed to their injuries from the absence of these.

The rôle of the field ambulance is to clear the battlefield and give such treatment to wounded as to render them fit for *transport* to hospital where operation work can be carried out under proper surroundings, and treatment and nursing given until recovery, or until evacuated from the area of operations for invaliding. Field ambulances are, in no sense of the word, hospitals, either for treatment and nursing of wounded, or for treatment of cases of sickness such as enteric, dysentery, scarlet fever, measles, etc., yet this work had to be carried out and, at the present time cholera has been added to the above list. The treatment of cases of infectious disease in the same unit with surgical cases, with no means of segregation, cannot be too strongly condemned.

Under a proper organization, hospitals would have been equipped and stationed within easy reach of the field ambulances, to take over sick and wounded and to treat cases of infectious disease. That is the vogue of the casualty clearing station and I have no knowledge of such at the front until the beginning of March and, even then, the unit referred to was an "improvised" one and was called upon, on many occasions, to deal with numbers four to five times in excess of what it was intended for.

As regards hospitals on the Lines of Communications I regret I have practically no knowledge of these except at Amarah, at which place I spent a few hours ashore. I found here, on about the 11th of January, Lieut.-Colonel Palmer, R. A. M. C., endeavouring to bring a British General Hospital into being, with the assistance of one Junior officer, R. A. M. C., and a scratch lot of personnel. The equipment was of the scantiest. He was working under very great difficulties cleaning out compounds for the erection of tents, pitching marquees and fitting up one or two rooms in adjacent buildings, during all of which time he was attending to a large number of sick and wounded, amongst whom were many officers. He informed me that he had applied to the Commandant, Amarah, for assistance in the form of fatigue parties; but such was refused.

The question of river transport has been a much vexed one and many and loud have been the complaints as to this service. The first hospital ship proper was seen at Camp Wadi on the 20th March, 1916; prior to this any vessel which was going down-stream was utilised for the evacuation of wounded. These and attached barges were not equipped for protection against the weather, except for the inadequate awnings common to river steamers, and driving rain on the broadside was free to soak any cases lying on the weather side and then to flow across the deck, after pollution with excreta, to flood cases on the other side. These unfortunate cases were, if anything, in better surroundings than others in barges where the water accumulated to a depth of several inches. Mattresses were few and far between and rezaïs very scarce. On to such were crowded sick and wounded indiscriminately, with no preparation of the ships or barges beforehand for their accommodation and with a personnel totally inadequate to deal with a tithe of the cases either as regards the dressing of wounds or feeding of patients. The sanitary arrangements were practically nil and bedridden cases had to defæcate and urinate where they lay owing to lack of sweepers or other attendants. In addition, I have personally seen cases of severely wounded men lying alongside cases of colitis or dysentery, and the resulting condition of their wounds and the state of the sick and wounded after even a journey as far as Amarah can better be imagined than described. The vessels on the upward trip were used for carriage of troops and stores, and the barges in many instances for the transport of horses.

To place a wounded man in such a barge is to invite the infection of tetanus. Cases were placed on these ships at least on one occasion having been brought straight from the battlefield and requiring urgent attention in the shape of re-dressing of wounds, change of clothing and hot, stimulating food, none of which could be obtained on board.

Evacuation, even by this form of water transport, has never been carried out to an extent that has materially lessened the congestion of medical units at the front and field ambulances have had so many cases in them for treatment awaiting evacuation that the attention given to these cases has unfortu-

nately, but necessarily, not been of the standard one would have desired, or anywhere approaching it, in spite of the greatest devotion of the personnel of field ambulances. In one field ambulance at one time there were 200 patients comprising cases of wounds and cases of sickness, including such diseases as dysentery, colitis, enteric, mumps, measles, and latterly cholera, with evacuation practically at a stand-still. This unit was less its bearer division personnel.

Officers commanding field ambulances have recently informed me that unless some of the strain is removed the result will be a complete breakdown of their personnel. Such a condition can only be the result of one of two things, either (a) a congestion on lines of communications and at the base due to lack of proper hospital accommodation, or (b) to a want of organising, for purposes of evacuation, even the existing river transport, such as it is; but, whatever be the cause, the result is most unsatisfactory and the condition calls for urgent measures of reform. Field ambulances may at any time be called upon to deal with any large numbers of wounded and, under present conditions, this could not be carried out except in the most primitive manner, entailing great suffering on the wounded with serious after-effects and a strong adverse bearing on their recovery.

I have previously referred to the misery inflicted on wounded by being carted over rough ground on a cart without springs or padding and there is no doubt but that a great deal of this might have been avoided had there been a number of small shallow-draught launches which could have been utilised, at least during operations along the river bank, to ply between the vicinity of advanced dressing stations established in rear of the fighting line and the tent divisions or hospital ships if these had existed. During the fighting in January, when the weather was such that an unencumbered man could make little, if any, progress in the mud, an organisation of this sort would have been of incalculable benefit. Valuable work of this sort was done by the owner of the "Aerial" but he could only cope with a very small number of cases and further he was only turned on to this work after the main rush of 21st January was over. In the absence of launches, arrangements might well have been made to push up-stream one of the steamers available and for it to take over cases at least one mile, if not more, in advance of where it was moored, thus, not only lessening appreciably the misery of a long land journey in an unsuitable vehicle for wounded, but also saving the land transport and the bearers from a great deal of unnecessary labour and reducing markedly the time of exposure endured by the wounded, since bearers and transport could thus have made probably two or three journeys over the shorter distance in the time taken for one long journey with the arrangements in force.

The question of providing satisfactory protection from the weather and a certain amount of comfort under this has been overlooked to an astonishing extent in this war. The normal tentage of a field ambulance is for one hundred cases, whilst the number in these units often exceeds three hundred. The tents supplied are of the 160 lbs. field hospital pattern normally; but it is only a short time since any field ambulance has had a first issue of these and the tent in use has been of the single fly pattern and quite inadequate in the high temperatures common in this country during nearly seven months of the year. Up to this date a complete issue even of the above inadequate establishment has not been made. The Tigris Force has already spent one hot season out here and there would appear to be a great want of foresight on the part of someone in not having an ample supply of suitable tents in the country ready for issue before the onset of the hot weather. The field ambulances from France brought with them four hospital marquees per unit, each capable of accommodating 18 to 20 lying cases; these have been of great value but the number is still inadequate. I have put forward a request for the issue of tents E. P. for hospitals at the front, in lieu of the authorised pattern tents, for two reasons, *viz.*, (1) The greater protection afforded and corresponding increase of comfort to patients. (2) The saving of work to the limited personnel by enabling a larger number of cases to be looked after by a definite personnel owing to their being grouped under fewer roofs. Apart from the expense, which under Indian conditions always seems to be the

stumbling block, there would appear to be only one objection to their issue, *v z.*, the weight and bulk for transport; but, with one of the finest waterways one could desire as a line of communications, this objection can not hold good, as a large number of these tents could be carried on one or two barges towed by launches. If ambulance launches had been supplied to the force, this is another way in which they might have been employed during an advance. During the cold weather in January there was a great scarcity of tents of any description and many a wounded man had reason to be grateful to the field ambulances from France, whose tentage went far towards providing much needed cover from drenching rain. Cover at or in the immediate vicinity of the battlefield is a necessity and tents are not suitable for this, as they draw fire, and all and sundry in the vicinity naturally object to their presence. In this division the practice has been for the advanced dressing station personnel to dig in and cover the cavity with tarpaulins close to ground level. With a moveable force nothing else is possible and this is a satisfactory method of providing cover. The tarpaulins, however, are necessary, and of these the scarcity has been very marked, those in use with the 3rd division having been brought from France. In a country where timber cannot be procured locally the provision of a collapsible framework to carry the tarpaulins when erected would be of great benefit. Each field ambulance should be provided with at least four such structures for the dressing station, not only in order that a number of cases might be put under cover, but also that the cases could be sorted into groups for evacuation, on the proper organisation and smooth working of which the comfort and attention able to be given to the wounded greatly depends. Again, some protection against the weather is necessary at the jetty, where a hospital ship is being loaded, so that cases may not have to be laid on the river bank in the mud, or exposed to the sun's rays, which has been the usual custom heretofore, and, for this purpose, large marquees should be provided, or, in the event of the force remaining stationary for any time, section huts would be more suitable.

As regards the arrangements for supply of food and drink, including personnel available for cooking and distributing food to patients in field ambulances. I think that, perhaps, I have already said practically all there is to be said on this subject; but, to sum up, I do not think there can be the slightest doubt but that all these were on a scale not at all adequate to deal with even a fraction of the number of sick and wounded which passed through field ambulances. Of late the comforts have greatly improved and the personnel now available is more suited to requirements; but the authorised equipment as evidenced by sets of diet utensils allowed to field ambulances is quite insufficient to allow diets being served to patients in anything like a reasonable manner. In British field ambulances the diet utensils number twenty, so with one hundred men in hospital these have to be cleaned five times before all can be fed. Theoretically, each man brings with him to hospital his knife, fork, spoon, etc., but practically this seldom happens since few men in the force are in possession of these and eat their food from their mess tins and cut it up with a clasp knife. Since the number of cases under treatment at one time is usually in excess of a hundred and has sometimes been over two hundred, it is apparent that the above scale of utensils is inadequate. I would suggest the number being made up to one hundred sets per British field ambulance. There are many useless articles amongst the equipment of field ambulances which might well be scrapped, to make room for these utensils and other useful equipment.

In Indian field ambulances the necessity does not arise, since Indian patients almost invariably use their own utensils, and look with suspicion on others.

The number of cooks allowed is six per British field ambulance, four per Indian field ambulance, and this number is not sufficient; even apart from the fact that this number is not often available, owing to casualties from sickness. The number should be raised to two per section. Apart from the hospital, or tent division, it must be borne in mind that the bearer division requires the services of cooks at the advanced dressing station, to which wounded are first brought, and where hot food and drink is administered, this being as important as the dressing of the

wounds, in fact having a stronger bearing on the ultimate recovery of the patients ; and, in some cases, it may depend entirely on the fact that stimulating food and drink have been administered in time as to whether a wounded man may succumb to his injuries or survive.

The supply of food is a very vexed one and of general interest, not only to sick in hospital, but to troops in the field. A scale of rations, which at full scale is inadequate, is laid down for issue ; but this has never to my knowledge been an accomplished fact, and the manner in which the troops have been catered for as regards rations has been the source of many and bitter complaints. At the present time the state of affairs is as bad as it has ever been and men are receiving actually only a portion of the authorised ration, simply because the supply authorities have not the articles to issue. A hand to mouth existence goes on, each barge as it comes up being off-loaded and issued without any chance of a reserve being built up. In addition to the actual quantity of food being too small to keep the troops fit, and in such a physical condition that one can depend on their having a certain amount of reserve of vital energy to enable them to resist invasion by epidemic disease, or, if infected, such a reserve as will tide them through the course of the disease, the quality and variety is not what it should be. I now hear that the supply of potatoes and fresh onions is not expected to hold out much longer and it is proposed to issue preserved potatoes and vegetables in lieu. This can only have one result, *viz.*, a great lowering in physical tone and a certainty that scurvy will break out broadcast ; of this already a number of cases are being admitted to hospital. Even if fresh vegetables, such as tomatoes, lettuce, carrots, turnips, etc., are issued, the carriage of these is so slow up-stream that in a climate such as this a very large wastage is bound to take place, with the result that the amount fit for consumption actually received by the men in the trenches will be so small as to be valueless. Potatoes and onions, with reasonable care in transport, should survive the effects of the journey and arrive in a much more satisfactory condition.

Apart from the minor details of sanitation the two main outstanding points, *viz.*, latrine accommodation and water-supply, call for remark. I think that the first point brought forcibly to my notice on arrival at our advanced base at Wadi, is the fact that there were no latrines of any sort. After spending 15 months in France, where the sanitary arrangements were of a high order, and the attention given to these by officers in authority was unremitting and untiring, the condition of affairs with the Tigris Corps came as a shock to all new arrivals. The custom of the country seemed to be alike for all, Arabs and both British and Indian troops. This custom consisted in the use of the river bank for purposes of relieving nature and the foreshore and bank generally were a mass of *fæces*, much of which was typically dysenteric in type. Everyone seemed to take it as a matter of course and no attention appeared to be given to the state of affairs by those in authority, in fact the most favoured spot on the bank was the site at which the Corps Headquarters vessel was moored. It should not be necessary to say any more, except that when such gross abuses were permitted it could not be expected that much attention would be given to the niceties of sanitation. It was not until some weeks later that latrines and latrine supervision began to materialise. The right bank, which came under command of General Officer Commanding, 3rd Division, was taken over clean, as it had not been previously occupied except by a few Turks, and from its inception the camp of this division was put under proper sanitary control and so long as this camp was under General Officer Commanding, 3rd Division, and occupied by his troops the condition was most satisfactory. With the above conditions obtaining on the left bank the quality of drinking water can be gauged when it is pointed out that this was drawn from the river and drunk by the troops without sedimentation even and with no attempts at purification. It is little to be wondered at that large numbers of men went down with dysentery. On the right bank tanks were dug on a shelving beach about 15 yards from the edge of the water and into which the river water percolated through the intervening sand and was delivered absolutely clear and free from sediment by means of pumps, the bottom of the tanks being several feet below river level. Chlorine apparatus for sterilisation of water were not received by any units of the division for some considerable time after arrival and then only by a few ; even at this date some of the units are not yet provided with these, in spite of the fact that we are in the presence

of a cholera epidemic. I should like, at this point, to remark that in my opinion the chlorine apparatus is not a satisfactory one. It is flimsy in construction, requires the upkeep of two different chemicals which never seem to be available at one and the same time, also the chlorine water made is very unstable and cannot be distributed for use away from the site of its manufacture with any certainty that it will retain its virtue for any appreciable length of time. As only one apparatus at most is given to one unit, it follows that detachments are forced to go without the means of purification of their drinking water. Tablets of acid sulphate of soda have been repeatedly asked for but are not available. These could have been issued to small detachments, the men of which would then have been protected against infection by water-borne diseases. I have put forward a request that, in place of the chlorine apparatus, an issue of chlorine water be made, put up in the form of glass capsules. These can be distributed to detachments and require no special knowledge or intelligence on the part of the users. These should be of a size to contain enough sterilising fluid for one pakhal. In lieu of this, which might be objected to on the score of expense, I have suggested to Assistant Director, Medical Services (Sanitary), that chlorinated lime be provided. This should be packed in *small* tins fitted with lids such as would prevent loss of the chlorine, and the supply should be constant to obviate accumulation of the material in a hot climate at the front where deterioration would be apt to take place.

For troops on or near the river bank the most satisfactory method for provision of a good drinking water supply would appear to be one in which a central water station existed, run by special personnel and where water could be sedimented, purified and issued in bulk. With one central station the loopholes for contamination, the chances of which would then be practically *nil*, would be greatly reduced and personnel and material being grouped would make for economy. This, of course, would necessitate a permanent plant in the shape of tanks, pump, syphons, etc. Such could surely have been inaugurated at least a year ago with the exercise of a little foresight and energy, or certainly after the experience of last year. It ought to have been in operation before the onset of this hot weather at latest. The most convenient form would have been an installation on water borne transport which could have moved with the troops during their advance. Such an arrangement would be of incalculable benefit to the troops and would go far towards minimising the chances of epidemic disease traceable to water. An attempt has been made in this division to form such on the river bank but it can only be an "improvisation" at best. The "tanks" are tarpaulins with marquees pitched over them and the water is pumped from the river to the tanks, and from the tanks to pakhals, by means of hand pumps which are both inefficient in action and insufficient in number. However, the water is sedimented and purified, and although from lack of material a sufficiency for the division cannot be legislated for, still 6,500 gallons of pure water is now being distributed daily*. The amount aimed at for present needs is 30,000 gallons; but until a sufficiency of pumps is obtained the limit of issue has been attained.

"The manner in which and the extent to which patients suffered as a result of an inefficient medical service in the early part of this year" are:—

(a) *The manner in which they suffered—*

- (1) Exposure to cold and wet when lying wounded on the battle field through the inability of the medical service to clear this of wounded in anything like a reasonable time on account of an insufficiency of personnel and transport. This could have been appreciably improved by the pushing forward of launches or steamers which would have enabled the limited personnel to have got through the work in a much shorter time.
- (2) From aggravation of the shock of their wounds on account of the delay in administration of hot food and drink, or, in some cases, the failure to supply this at all owing to the scarcity of the necessary stores and the insufficiency of personnel and equipment to prepare and issue this.

(* Since writing the above, 21,000 gallons have been reached, and it is hoped that, in a few days, this will be still further increased.)

- (3) Sepsis and gangrene of wounds due to insufficiency of dressings, etc., and also to the fact that personnel available was not numerous enough to change these, even when available.
- (4) Dysentery, colitis, and other intestinal diseases, due to the absence of a system for provision of a proper drinking water supply.
- (b) The extent to which patients suffered can only be given as ranging through degrees of severity from protracted convalescence to loss of life, all depending on the original severity of the injury and the amount of reserve of vital energy possessed by different individuals.

The defects in the medical services in Mesopotamia and the breakdown in these cannot be separated from the general scheme of affairs of the campaign as they are only a portion of a general breakdown including all branches and departments consequent on the existence of a long line of communications, with a totally inadequate amount of transport on that line and the responsibility for which is entirely outside the province of the medical authorities.

The field ambulances of the 3rd Division, as it arrived at Basrah, consisted of two British and three Indian field ambulances up to full strength as regards personnel and equipment; in fact, as regards the latter, this (as regards expendable articles) was probably about 300 per cent in excess since the state of affairs out here was known to some extent and all provision made to ensure 3rd Division units being as well equipped as possible. The transport of the units was good, so far as it went, but this was on a reduced scale to that maintained in France.

Since writing this the ambulance transport has in part arrived. However, the smallest benefit even of this has not been derived by the division, since up to this date (19th May 1916) none of the transport has been sent up to join the units it belongs to and this after an interval of four months during which time it has been retained at the base.

The absence of the water carts particularly has been seriously felt.

The headquarters of the division arrived at Basrah on 6th January 1916, and immediately the A.D.M.S. visited the D.M.S. and made enquiries as to the probable date of arrival of the field ambulances. No information could be obtained regarding this subject at the time and, on asking what arrangements were to be made for medical units in the meantime a reply was given to the effect that he—the A.D.M.S.—was to endeavour to improvise such at Amarah. Leaving Basrah on the 9th January, the Headquarters arrived at Amarah on the 12th of that month and, on enquiries as to what could be done in the way of improvising medical units at that place, we were met with a definite statement that this was an impossibility as the only personnel at Amarah was already undertaking a great deal more work than it could compete with, also with regard to equipment there was not enough to supply the requirements of the station. I then induced the staff of the division to send an urgent wire to Headquarters at Basrah insisting that as the field ambulances of the division arrived they were immediately to be pushed up stream. The effect of this was that Nos. 111 and 112 Indian Field Ambulances arrived at the front a few days behind Divisional Headquarters and were in time to render invaluable assistance on the 21st of January, when 111 Indian Field Ambulance played a prominent part, as it was complete with personnel and equipment. All cases that passed through this unit were properly dressed and prepared for the journey down-stream and, in addition, were given an adequate amount of medical comforts. No. 111 Indian Field Ambulance was taken for this purpose from the administration of the 3rd Division and handed over to the 7th Division or Corps Troops.

The medical arrangements of the right bank were in the hands of No. 112 Indian Field Ambulance with an attached section of No. 19 British Field Ambulance of the 7th Division.

No. 113 Indian Field Ambulance, No. 7 British Field Ambulance and No. 8 British Field Ambulance arrived on 31st January 1916, 18th February 1916 and 19th February 1916, respectively; but none of these units were in possession of their transport, all of which had been left at Basrah along with the chargers of the officers. This necessitated officers marching with their units, with the result that, on account of the fatigue, they were not able to do themselves justice as regards their work in cases where large numbers of casualties occurred at the end of a march.

No. 111 Indian Field Ambulance rejoined the division on 20th February 1916, and the division was thus complete as regards field ambulances. The Sanitary Section, however, which came from France with the division, where it had been formed as a divisional unit, was held up at Amarah, on the plea that it was required there and that it was a Lines of Communications unit. After repeated representations, a squad of sweepers was sent up under a Non-Commissioned Officer of the R. A. M. C., for duty with the division; but it was not until the 27th April that the Section arrived complete. The work in connection with sanitation at the front was most urgent and the absence of this unit greatly felt.

Although the division was complete as regards its field ambulances; still, owing to the absence of casualty clearing stations, these units were more or less immobile and, in the event of a move by the troops, certain ambulances had to be diverted from their legitimate work to act as casualty clearing stations, thus diminishing the medical efficiency of the division during operations. This was particularly noticeable on the 8th of March, when operations against the Es Sinn positions were undertaken. In this case the arrangements for establishing casualty clearing stations were taken out of the hands of the division and all orders on the subject emanated from the Corps. The arrangements made were most unsatisfactory, on account of the methods employed to organise these clearing stations. This was done by taking, for example, an officer from one unit, nursing and ward orderlies from a second, medical subordinates from a third, and so on. If, in place of this, one British and one Indian Field Ambulance had been detached the result would have been an organised hospital on the river bank, instead of what actually took place, *viz.*, 5 field ambulances disorganised, and an organised rabble at bridgehead acting as a casualty clearing station.

In connection with the operations on the 8th of March, instructions were issued by Corps that wounded were to be collected in the Dujailah redoubt, which place was occupied by the enemy, and no foresight was used or provisions made in the event of the position not being captured. As it turned out the position was not captured and all wounded, of which there were about 2,500, had to be transported to the river. In order to do this all supply carts had to be requisitioned and their loads scrapped or abandoned; but, even with this, the transport was inadequate and the men of the Army Bearer Corps, exhausted by continuous marching and carrying of cases from the battlefield to the field ambulances, had to carry numerous cases a distance of fifteen miles by hand. Even if the transport had been sufficient, it was of such variety that to place a wounded man with fractured limbs on vehicles of this description can only be described as calculated cruelty.

The battlefield was cleared by the bearer divisions in a most admirable manner and everyone sang their praises, as they also did about the work done in the field ambulances (tent divisions), where cases were properly dressed, splints applied, and cases fed. Loud and bitter, however, were the complaints, made about the evacuation to the river bank. The weather was very warm and arrangements for supply of drinking water totally inadequate, if indeed any arrangements could be said to exist at all; and, apart from that of the troops, the misery caused to wounded owing to the lack of this was very great.

The retirement was carried out under a heavy fire from the enemy and the greatest difficulty was experienced in clearing wounded, which occurred during this, and it was only by using the limbers of ammunition wagons and, in some cases, guns, that this was accomplished.

Since the 8th of March, no operations of any magnitude have taken place away from the river, and the work of clearing has been carried out without much difficulty, except for the fact that the only transport for wounded is still the army transport cart, unsprung and uncovered.

Also, the abuse of diverting field ambulances from their proper sphere is still in vogue, owing to the absence of casualty clearing stations, and Field ambulances acting as these are over-packed with cases, and under-staffed.

Evacuation down-stream does not seem to have improved one iota since January, at least as regards the numbers able to be dealt with, and congestion of units at the front is most marked. This calls for urgent reform.

Letter from Major W. M. Hunt, to Sir William Vincent, dated 3rd June 1916.

Reference your No. 55, dated 20th April 1916, I regret having been unable to answer it before as I only got it the day before sailing for India. I do not think I am in a position to give evidence more than any other officer but will endeavour to answer your questions in detail :—

- (a) After the battle of Zain or Sahil the wounded were left out in the rain and the mud the whole night and evacuated to the S. S. "Varela" in filthy boats that had brought ashore Supply and Transport stores. After the battle of Shaikh Saad 14 months later the wounded were again left out all night without shelter in the rain and sent down to Amarah on barges and paddle-boats which were in a filthy condition ; there was no adequate supply of bandages or medical necessities. The medical staff was insufficient to cope with the number of wounded. Hospital steamers there were none. At Shaiba the arrangements were quite inadequate, the supply of bandages running out and staff insufficient. The same state of affairs was in evidence at Orah and Hannah.
 - (b) I think every possible arrangement was made for collecting and attending to the wounded considering the lack of equipment and shortage of personnel.
 - (c) Up to the middle of March 16th the only method of transporting wounded by land has been stretchers and army transport carts that I have seen. I believe a few ambulances have since then arrived. Up to the 9th March the hospital arrangements have invariably been totally inadequate.
 - (d) Also quite inadequate sometimes non-existent at Sahil, Shaiba, Orah, Shaikh Saad and Hannah beds and mattresses there were none. I saw at Shaikh Saad and Orah, many wounded soldiers both British and Indian lying under wet and filthy gunny bags and very glad to get them.
 - (e) At Shaikh Saad none. The wounded were given tea in bags in the morning and borrowed tins from my battery to boil water in and in many cases had to drink from empty jam and bully beef tins. No medical comforts available and only bully beef and biscuits provided.
 - (f) About these I can say nothing but have heard they were inadequate on the "P" boats.
 - (g) The extent to which the patients suffered is undescrivable. The filth, misery and suffering they went through owing to wet and exposure had to be seen to be realised. Many I believe died of the effects.
 - (h) The cause was of course inadequate preparation beforehand, lack of organisation and inadequate personnel. I think the resources available were utilised to the fullest possible extent, and the work of both the R. A. M. C. and I. M. S. officers in the field and in the hospitals has won the admiration and gratitude of the whole force. Their industry, resource and energy being beyond all praise.
3. In my opinion the breakdown was due to either of two causes or a combination of both.
- (1) Either the administrative medical authorities did not ask for sufficient equipment, personnel, &c., in which case they are responsible ; or if they did
 - (2) Those who refused sanction and funds for the same are responsible for a state of affairs and an amount of unnecessary suffering, I should think, unparalleled since the Crimea.
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Letter from Brigadier-General S. M. Edwardes, Commanding, 8th Infantry Brigade, dated Sinn Camp, the 7th June 1916.

I beg to acknowledge receipt of your 97-109, dated 11th May 1916 on 1st June 1916. I do not know if I should have sent it to Brigadier-General Fowler who commands the 37th Brigade, but I thought probably he too would have received a copy.

2. I fear I can be of very little assistance to the Committee, as my experience as yet has not included an attack battle. I took over command of the 37th Brigade temporarily after the fighting on the 8th and 9th of March, and later was transferred to the 8th Brigade.

I attended the attack on the Dujailah on the 8th and 9th March as an onlooker attached to the Corps Staff as I had only just arrived. Previous to that I had no personal experience of Mesopotamia, but of course heard of the terrible hardships undergone by sick and wounded of which you have doubtless received all details.

On the 8th and 9th as far as I could judge the evacuation of the wounded as far as the river at Orah was fairly satisfactory, but this was at the expense of very large quantities of rations which were abandoned in order to provide carts. I do not know what ambulances there were; I did not see any. It seems to me that to a great extent the insufficiency of medical arrangements has been due not to the actual personnel who have all worked untiringly, but to the following facts:—

- (a) Under estimation of the value of the Turk as a fighting man.
- (b) Under estimation of his enhanced value with the modern rifle in a well prepared position.
- (c) Under estimation of the strength of the prepared positions.
- (d) Over estimation of the probability that the Turk if attacked will bolt.

The strength of the various Turkish positions we have now taken over must have caused no little surprise to most people, even to units who so bravely but unsuccessfully tried to take them.

3. As regards hospital accommodation I can only speak from observation in the forward area. In the first place I consider the Bell tent as used in Europe quite unsuited to the East, either for fit or unfit men. There are no mattresses, I have seen wounded officers lying with scanty bedding on the ground. There should be more double fly tents of all sizes.

4. As regards appliances for the hot weather:—

Ice machines.—The patent small ice machines are not I believe of much use except for making a very small quantity in emergency. Big serviceable ice machines or rather factories could only be erected at permanent bases and the transport of ice to any forward area would be impracticable.

Electric fans.—Up to the present there has been too much wind to allow of these working but at Base hospitals and in houses they would be useful.

Soda Water machines.—Would be useful near the river or where water is abundant and easily obtainable which means transport and personnel of which there is not sufficient. Extra transport would be required to convey soda water to various points and also for carrying the plant about.

I think the simplest and most necessary appliances needed are canvas water tanks. Every unit should be provided with these; tanks according to size to every platoon and all officers' messes. The frames for these should be strongly made and not at cheap contract rates, as evidenced by some I have seen in hospitals.

Hand punkahs, fly flaps (not too shoddy) tinted net veils to go over rim of helmet and round neck are needed to decrease the annoyance caused by flies. To protect really oneself against the fly of Mesopotamia or to lessen its number is

I believe impossible. Fly papers and traps of all descriptions have been tried but their effect is only the satisfaction of seeing a large number destroyed: they do not reduce the numbers in the slightest. I understand a Fly Specialist is somewhere in Mesopotamia, but I have not heard the results of his experiments. The only wonder is that there is not more fly borne disease. The flies seem to like the various disinfectants like Creosol, Pesterine, Chloride of Lime, etc.

5. A word as regards rations. The Government Lime Juice should be of better quality and the ration increased. Dried vegetables, not potato meal which is very unpalatable, should be provided in lieu of fresh vegetables when latter are not obtainable. Bully Beef palls on one after a bit, especially in the hot weather, and the Soldier, and the Officer perhaps in a lesser degree, finds it hard to disguise it. Army rations seem to be unknown now. They used to be very good.

Facilities for obtaining stores to supplement the rations should be increased and steps taken to prevent pilfering *en route*.

6. I have not touched the subject of river transport for sick and wounded as I have no knowledge or personal experience on the subject.

Statement of Captain F.-T. Dowling, R.A.M.C., taken at Basrah at the British General Hospital on the 3rd May 1916 (revised June 1916).

As one of the Medical Officers of the Advanced Section of No. 3. A. British General Hospital I arrived in Mesopotamia on board the transport "Aronca," before the battle of Sahil which occurred on November the 17th, 1914.

Were you at the engagements of Fao and Saniyeh? No.

The combatant units on board were ordered to disembark off Sahil on the 15th and 16th November and their baggage and equipment which had been placed in the ships' holds before that of a stationary or immobile medical unit necessitated much difficulty in unloading and considerable damage to and derangement of the medical equipment. The section of the General Hospital was ordered by the A.D.M.S., 6th Division, to transfer its personnel and equipment to an open out on the Transport "Varela". Thereby the transport "Aronca," a clean empty ship which would have functioned as an ideal hospital ship with medical personnel and equipment already on board, was abandoned for the "Varela," which, in my opinion, owing to its insanitary condition, its use as an Ordnance Depot and its crowding with sheep goats, butchery and Supply and Transport personnel, Ordnance personnel and Postal and Telegraph personnel, etc., should have been the last ship under any circumstances to be used as a hospital ship for British Troops.

On arrival on board the "Varela" we found No. 125 Indian Field Ambulance under command of Lieutenant-Colonel Jennings, I.M.S. and one section of a British Field Ambulance under command of Major Lambert, R.A.M.C. These field units disembarked on the morning of the 16th or 17th November and handed over about seventy British sick and wounded to the section of No. 3-A. B. G. H. The Turkish and Indian patients were handed over to Major Perry, I.M.S., whom we also found on board.

The B. G. H. improvised an Operating Theatre out of the 2nd Class Dining Saloon with much difficulty.

Major Perry, I. M. S., who was senior to Major Palmer, R.A.M.C., of the B. G. H. was appointed S. M. O. by the A. D. M. S., 6th Division.

Did the wounded mentioned above come from Saniyeh? I presume so.

After the battle of Sahil we received two or three hundred British wounded.

Had they all mattresses? I cannot now state if they all had but I remember most of them had mattresses but no beds.

Had you a derrick to get your wounded on board? I do not remember; but I recollect that the 1st Officer of the ship arranged some method easier than that which first existed for getting the lying-down wounded on board.

Were your patients put on the same deck as the animals? No they were put on the deck immediately below it but owing to the presence of these animals they suffered greatly from flies and an offensive smell which permeated the atmosphere they were obliged to live in.

The noise which persisted for several days of bringing up and unloading ammunition from the holds, around the entrances on which were lying the sick and wounded, some of whom suffered from shattered spines, heads or limbs, produced great discomfort.

How many cases is a section of a British General Hospital supposed to deal with? It is equipped for 100 cases only, but in an emergency one can improvise so as to be able to deal with a greater number.

Some of the British sick and wounded were transferred about the 24th November to the "Erinpura" which proceeded to India. The Indian and Turkish sick and wounded who were in Major Perry's charge were also transferred to the "Erinpura."

I consider that the close proximity of the Indian and Turkish sick and wounded to British sick and wounded owing to the habits of the oriental is both offensive and injurious.

How many Turkish sick and wounded were on board? I do not know exactly, probably about thirty.

Did you send any staff or equipment on to the "Erinpura?" None were sent from No. 3-A. British General Hospital.

Was the staff and equipment on the "Erinpura" sufficient or not? I don't know.

Did you have a shortage of chloroform or any authorised drugs or dressings on the "Varela"? No.

Did you have a shortage of medical or surgical equipment on the Varela? I don't recollect any shortage of any consequence other than bedsteads.

We retained quite a large number of sick and wounded on the "Varela" from which we transhipped them and the hospital to the River Steamer "Blosse Lynch" about the 29th November and proceeded to Basrah where we arrived on the 1st December 1914. Next day we disembarked and removed the patients to the Sheikh of Mohamerah's palace the building allotted for the British General Hospital, in accordance with orders of A. D. M. S., 6th Division.

We found the palace in a very dirty condition. It was almost completely occupied by the officers and personnel including dooli bearers of field medical units. The officers of these field medical units occupied and had their Messes in the best rooms which should have been given up to the patients. Some of these rooms remained occupied for about eight or ten days until the arrival of Lieutenant Colonel Adamson, R.A.M.C., who ordered the remaining Commanding Officer of a field Medical Unit whose command was instituted to look after the casualties among Indian Troops, to leave the place within two hours. It is difficult to realise why such and similar field units should occupy, against protest, the best and most comfortable rooms in a British General Hospital. In justice to my brother medical officers of the advanced section of the British General Hospital I must state that we lived, slept and had our food during the above ten days, in a cold bleak and damp outhouse which functioned as a kitchen for the hospital.

The remaining one and a half Sections of No. 3-A, British General Hospital arrived about the 8th or 10th of December 1914.

I continued to do duty in the British General Hospital until the 23rd April 1915 when I was ordered to replace Major Masters R.A.M.C., who went sick to and subsequently remained for duty in the British General Hospital, in No. 3, Combined Field Ambulance.

Were the patients in the British General Hospital overcrowded? Yes, they were overcrowded during the time the field units occupied rooms in the hospital but not subsequently, considering active service conditions.

During the period of your stay in the British General Hospital did any one suffer from want of attention? No one as far as I know.

Would it be absolutely untrue to say a patient was ever left for two or three days in the British General Hospital without the requisite attention? Yes, it would be untrue as far as I know. Do you think the quality of the food supplied to the patients was the best? No, it was not; but it was the best that we could procure from the Supply and Transport Corps.

Was the food ever cooked by sweepers? No, it was cooked by Army Hospital Corps cooks and by men of the Dorset and Norfolk Regiments who were men under the supervision, for quite a considerable time, of a sergeant cook.

Did any officers ever make up a Mess owing to not being able to get food? Not as far as I know.

Do you know where the Turkish wounded were kept? I have seen wounded Turkish Officers in the British General Hospital. I don't know where the wounded Turkish rank and file were kept except in the Mission Hospital but I have also seen some in tents behind the Indian General Hospital.

Was there any serious cause for complaint by any of the patients in the British General Hospital while you were there? None as far as I know.

I joined No. 3, Combined Field Ambulance on the 23rd April 1915 and was put in command of Section A, of that unit. The ambulance embarked on the S. S. "Mejidieh" on the 25th April 1915 and proceeded up the Karoon River (on the Ahwaz Route) as far as Brakieh where it disembarked. Who was in command of the Force? General Gorringe.

What did the force consist of? Two Infantry Brigades with Cavalry and Artillery.

Who was A. D. M. S.? Colonel Adamson, R.A.M.C. What Medical Units accompanied this force? Only two sections of a field ambulance, I think it was No. 16, Combined Field Ambulance under command of Major Pearson, I. M. S. accompanied our Brigade under command of General Lane, and Section A. of No. 3, Combined Field Ambulance under my command accompanied the 30th Brigade under command of General Mellis, into and through the Kafajiyeh action.

The remaining four sections of No. 3, C. F. A. remained at Illah on the left bank of the Karkeh River.

On my return to Illah I found there three Sections of No. 31, Indian Cavalry Field Ambulance under Major Watson, I.M.S., but I found that the remaining four Sections of No. 3, C. F. A. had gone to Basrah.

Was Section A, under your command, fully equipped in personnel and material? Yes both, personnel and equipment were complete.

During the Kafajiyeh operations my section which was a British one dealt with all casualties—British and Indian—wounded and sick which occurred in the Force under command of Major-General Mellis. On my return to Illah my section took in only British sick of the Force there. Large numbers of sick were treated and passed through my command. Owing to the indefatigable energy of my personnel, despite the fact that we often had three times the number of patients a section is equipped for, all these patients were well looked after and well fed, except that no potatoes vegetables or lime juice were procurable from the S. and T. Corps. Quite a lot of Scurvy and Debility resulted from the prolonged absence of these articles in the Force.

Did you get sufficient tinned milk for the Hospital? I cannot now definitely recollect, but I am under the impression that there was a shortage at times.

There was no ice available on this expedition outside Ahwaz although I have known the shade temperatures reach 126° Fahr. Ice for hospital use to my mind could have easily been arranged for from a standing camp like Illah which was only about twenty-two miles from Ahwaz by motor.

Who was S. M. O., Ahwaz? I think Major Brown, I. M. S., was for a considerable time during the earlier portion of the hot weather of 1915.

On the march from Brakieh to Illah and at Illah, I consider the General Staff displayed a great want of interest in the sick by continuously allotting the dustiest and most unsuitable camping sites to field ambulances, notwithstanding representations made for proper sites.

The method of evacuation of casualties—both sick and wounded—during the Kafajiyeh operations which lasted about five weeks—was for the most part by army transport cart but in addition two motor lorries and one motor ambulance were used, the latter the gift of the Members of Indian Council. The General Staff took over the control of these motor vehicles and thereby limited their utility.

After some weeks at Illah my unit was ordered to proceed to Ahwaz, there we remained for about ten days during which we functioned as a hospital. Section A., was then ordered to proceed to Basrah where I rejoined the Headquarters of No. 3 Combined Field Ambulance on the 20th June 1915.

On the 25th June 1915 I set out with No. 3 Combined Field Ambulance under the command of Lieutenant-Colonel Jennings, I.M.S., up the Euphrates on the Nasariyah operations.

What was the strength of the Force? It was somewhat stronger than an Infantry Brigade *plus* Artillery.

Col. Adamson, R. A. M. C., the A. D. M. S. accompanied the Force, which was under the command of General Gorringe.

I was present at the Battle of "Gurmat Safah" on the 5th July 1915 and commanded the Bearer Division on the right bank of the Euphrates.

The S. S. "Mejidieh" which had two field guns mounted on fore part of her deck, was used as a hospital ship. All the casualties which occurred in the action were put on her. The orders I received were "that wounded would be sent to nearest part of river bank and from there they would be conveyed to the S. S. "Mejidieh". This ship owing to the part it took in the battle, with its guns, was to my mind inappropriately used as a hospital ship and owing to its position the wounded were subjected to avoidable and unnecessary risk of being killed or further wounded. I have been told that number of shells fell close to the ship and one tore a piece of the deck of a barge used as an adjunct to the "Mejidieh" and to which it was tied.

After the action of Gurmat Safah we had about four hundred to six hundred sick and wounded. I consider the arrangements for accommodating the sick and wounded were bad as a flat-bottomed hospital ship of little draught should have been improvised. It would then be fitted with so many things which are necessary for sick and wounded in a hot weather like that of Mesopotamia, and further more it would be able to get over the Hammar Lake at a time when deeper draught vessels were unable to do so. Furthermore the unpleasantness for the wounded of having guns fixed along side them, would have been avoided.

Did a hospital accompany the expedition? No. No. 3 Combined Field Ambulance and one section of No. 131 Indian Cavalry Field Ambulance were the only Medical Units present up to and for the action of Gurmat Safah.

Were you short of personnel to deal with the number of sick and wounded? Yes, we were rather short of personnel.

Were you short of medical comforts? I think there was a sufficiency of medical comforts but I cannot now accurately say.

The sick and wounded were evacuated to Basrah on the S. S. "Mejidieh" and barges, on about the 7th of July 1915. I had charge of the convoy which consisted of about four hundred British and Indian.

How many Medical Officers had you on board? I was the only Medical Officer.

Were the patients well looked after? Yes. Considering the means and personnel at my disposal they were well looked after. I personally interviewed every patient at least once daily. Every patient was dressed or had his medicine at least once daily if he required same, and all patients unable to eat were frequently fed. The patients on ordinary diet got early morning tea about for 6-30 A.M. Breakfast about 8-30 or 9 A.M. of tea, bread or biscuit and butter, bacon and jam. Dinner about 1 P.M. of soup, meat, fresh or tinned, bread or biscuit, etc, Tea about 4 P.M. of tea, bread or biscuit, butter and jam. Supper at about 7 P.M. of cocoa, bread or biscuit and jam.

I also frequently issued brandy to British patients during the voyage.

Had you enough medical comforts? Except for ice and soda I had.

Did you arrange for proper drinking water? Yes.

Had the men mattresses? They had either mattresses or blankets to lie on.

Was the latrine accommodation adequate? I think it was just adequate.

Had you sufficient sweepers? As regards the patients—yes; they did not suffer, as sweepers were always on duty day and night.

My small personnel were again, as on every occasion during my period of service in the Field in Mesopotamia, called on to do the work of twice or three times their number, and they did it with commendable whole-heartedness and self-sacrifice both day and night. It was owing to their work being properly organised, that on that convoy there was no cause for complaint (except for the absence of a proper hospital ship), and officers and Men expressed their gratitude.

On my return from Basrah I rejoined my unit at Asdani about the 20th July 1915. I went through the Battle of Nasariyah on the 24th July 1915, again in command of a bearer subdivision which operated on the left bank of the Euphrates.

How many wounded were there? About five or six hundred.

What was the strength of the force engaged? I should say about two Infantry Brigades and Artillery.

What did the medical establishment consist of? One section No. 1 Combined Field Ambulance, one section No. 131 Indian Cavalry Field Ambulance, two sections of No. 16 Combined Field Ambulance and five sections of No. 3 Combined Field Ambulance. The ship carrying two other sections of No. 16 Combined Field Ambulance ran aground in the Hammar Lake, so that they never reached Nasariyah.

Were there any hospitals? No.

In the absence of hospitals I consider there should have been more field ambulances.

There were about eight hundred to one thousand sick and wounded in No. 3 Combined Field Ambulance alone. The patients suffered considerably from overcrowding in the intense heat of July with a temperature of about 120°-F., in the shade, and also from insufficient subordinate and menial personnel. There was no ice, soda water or fans, and I think lime juice was short.

Was there a shortage in milk? I cannot now remember if the milk was short.

Did the men complain about their food? I cannot now remember.

I was in charge of the first convoy of sick and wounded which left Nasariyah on the 25th or 26th July 1915, for Basrah, on board the S. S. "Mejidieh" and barges attached there to. There were about five hundred British and Indian patients.

How many Medical Officers had you? One and myself. I was also given a wounded Medical Officer but he was only able to help me for one day.

The Medical Staff, including subordinate and menial personnel, were again called upon to work excessively hard by day and often times by night in order

to cope with the work, but I do not think the patients suffered (except from the absence of a Hospital Ship).

The journey to Basrah lasted about five days as the ship was aground for about a day in the Hammar Lake.

Were the arrangements for the supply of water adequate? They were adequate. This matter of water-supply and every other detail essential for the comfort of the patients were left on this occasion as on that of the former convoy, to the energy, experience and organising power of the Medical Officer in charge of the convoy. I clearly recollect the almost total absence of preparation with which I was handed over these convoys. A certain amount of this, however, was excusable owing to the short notice given for the loading of and the forced hurried departure of these convoys by the General Staff.

I can quite well realise the chaos that would ensue were a medical officer inexperienced in the requirements of British sick and wounded or a Medical Officer unacquainted with the Urdu language and the requirements of Indian sick and wounded placed on medical charge of such a mixed unprepared convoy. These were the causes (which even prevailed up to the time I left Mesopotamia) of certainly much avoidable hardships and privations to British sick and wounded on river convoys.

Were there many septic wounds? Considering the climate, etc., I don't think there was an undue proportion.

The same care of the sick and wounded on this convoy as prevailed on that of the one after the Gurmat Safah action was maintained.

I returned from Basrah by the first available ship to Nasariyah and remained there with No. 3 Combined Field Ambulance until the 15th October 1915. During that time there was nothing eventful further than piquet engagements with the enemy and protracted sniping of our camp at night by the enemy. During this sniping the hospital (really a field ambulance) was in an exposed and unprotected position, but although many bullets fell among the sick only one casualty, which I have been told died, occurred. He was a British nursing orderly.

Much sickness prevailed amongst the troops during August and September 1915 and No. 3 Combined Field Ambulance was ordered by the Deputy Director, Medical Service, Force "D," to function as a General Hospital.

Did you run short of drugs in August and September 1915? Yes, we were short of drugs for a week. We were not always able to substitute with other drugs.

On the 15th October 1915, 2 Sections of No. 3 Combined Field Ambulance, one British Section and one Indian Section, were ordered to proceed to Kut-al-Amarah, if not required at Amarah. I was in command of these two Sections and in addition there was one other medical officer. One assistant surgeon instead of two with the British Section, and one sub-assistant surgeon instead of two with the Indian Section formed the subordinate medical personnel. The remainder of the personnel was almost complete.

We were obliged to remain at Kurnah for a passage to Kut for an unnecessarily long time. We arrived at Amarah early in November 1915 and were ordered to disembark.

I remember before the battle of Ctesiphon taking over at Amarah from an Indian Officer of the Indian Medical Service a convoy of about seventy or eighty British Officers and British Troops who were suffering chiefly from beri-beri. He had brought them down from Aziziyeh.

I regret that I am forced, out of consideration to British patients, to state that the arrangements on board that ship were deplorably bad. The patients were improperly fed and complained very bitterly to me of the treatment they had received during the voyage. They were obliged to drink unboiled, unfiltered or even unsedimented water. Their gratitude for five meals a day, when I took over the convoy, shall ever live in my memory.

Did you see any of the wounded from Ctesiphon? Yes, I saw many of them, as my detachment was used for disembarking those who were for hospital at Amarah. I also had an opportunity of seeing some of them as I was temporarily attached for duty for two days, to the British General Hospital at Amarah, prior to leaving that place for Ali-al-Gharbi. While at the British General Hospital I had chiefly charge of the sick and lightly wounded cases.

Did they strike you as badly looked after? As well as I now can remember, they did not. They were rather cheery.

Did you see any wounds that had been neglected? I do not now remember having seen any such.

My detachment was ordered to proceed to Ali-al-Gharbi and arrived there early in December 1915, and became the ambulance attached to 28th Infantry Brigade.

I had quite a busy time at Ali-al-Gharbi as in addition to my Field Ambulance taking in and treating all the sick of the Brigade. I was ordered by the General Officer Commanding Brigade (who a short time subsequently became General Officer Commanding, 7th Division) to select suitable buildings in the town for a British Hospital and an Indian Hospital and to prepare them for the reception of sick and wounded. With a great deal of trouble to the men of my detachment who were compelled to work very hard, and with the minimum expense to the State, a very comfortable hospital, capable of accommodating about 300 British patients, and an ideally cool building during the summer was ready in a short time. The Indian patients were also housed in a comfortable building.

On the 4th January 1916, the detachment under my command accompanied the 28th Infantry Brigade as its field ambulance, on the march from Ali-al-Gharbi for the relief of Kut.

I was told by the Brigade Major of the 28th Brigade that "we might have a few casualties at Shaikh Saad where the enemy would only make a feeble stand, but after that we would simply walk into Kut."

I was present with my two sections of a field ambulance which functioned as a five-sectioned field ambulance at the Battle of Shaikh Saad on the 6th, 7th and 8th of January 1916. The unit under my command was the field ambulance for the 28th Brigade in this action and also in the actions of the Wadi on the 13th January 1916 and of "Umm-el-Hannah" on the 21st January 1916.

On the first day of the battle and in fact on all three days my ambulance functioned as a Bearer Division for the 28th Infantry Brigade. On the first day of the battle only, this brigade had three sections—my two and another cavalry one under command of an Indian I. M. S. Major, who had shortly before returned from fifteen years' civil employment. As he was unacquainted with the work of a field ambulance, he carried out my directions and I found him and his personnel of much assistance. Next day however this officer was ordered to accompany some other Brigade and in the rest of the action my two sections were the only field medical unit with the 28th Brigade.

The orders of the A. D. M. S. (Lieut.-Col. Mawhinny, R.A.M.C.), 7th Division, were that the wounded would be taken back to the S. S. "Julnar."

I established my dressing station at a suitable place but was shelled out of it, without any casualties occurring therein, late in the afternoon. I retired about two or three hundred yards but was ordered by a Staff Officer of the 7th Division to retire further.

I subsequently arrived close to the river and I ordered my Dressing Station Staff to prepare tea, beef tea, milk, etc., for the wounded who were lying on the river bank. We also dressed many of them and gave them blankets.

Was anyone looking after these men, putting them under shelter or feeding them? No, not when I arrived on the scene. Some time afterwards, however, I noticed they were put on the "Julnar" and another ship.

Was there any idea then to put the wounded into tents ? No, the place assigned for the reception of wounded was aboard the ships.

Many of the wounded collected on the right bank of the river belonged not only to the force operating on the right bank but quite a large number if not most of them belonged to the force fighting on the left bank.

Who was A. D. M. S. of the Force ? Lieut.-Col. Irvine, I.M.S.

I consider some medical personnel should have been looking after the wounded on the bank of the river before they were carried aboard ship. Both I and they were fortunate that I came across them, as I was able to turn on a portion of my personnel to look after them. The remainder of my personnel with all my transport carts I ordered (despite the orders of a Staff Officer of the 7th Division not to proceed further in the direction of the enemy) to search the battle field for and convey the wounded to where I was, *viz.*, quite close to the "Julnar." I continued to work there and helped to get the wounded on board the ships until the bank was cleared.

We spent most of that night in helping the sick and wounded. I collected my personnel and ordered them to rest. I and my other officer slept for a few hours under an army transport cart. It rained that night and this added to the general discomfort.

Did you see Lieut.-Colonel Irvine ? No. I did not see him that day.

Did you see Lieut.-Colonel Mawhinny ? Yes. I saw him helping to get the wounded on board the "Julnar".

Next morning, *i.e.*, the second day of the battle I asked for orders from the Brigade Staff but got none except to hold myself in readiness to advance with my ambulance at short notice. I might note here that, according to orders, the G. O. C's. Brigades would select the position for Dressing Stations.

I again divided my personnel into two portions; one I sent out with all available army transport carts to bring in wounded from the battle field; the other to look after the wounded and sick who were dumped down on the river bank to await accommodation on board ships. I acted thus on my own initiative. I received no orders to do it. I separated officers from men, British from Indian. I gave them plenty to eat and drink. I gave them a loan of all the blankets I had as the wind was very cold. We fed everyone and continued to dress the wounded until I received orders by telegram from the G. O. C, 28th Brigade, to establish at 2-30 p.m. a dressing station in the Sappers and Miners Redoubt about two miles distant. I think it was 2-30 p.m.

Were there any tents pitched for the wounded on the bank ? No. Personally I had none at my disposal as all hospital tents were ordered to be loaded on *mahailas* before we left Ali-al-Gharbi.

I established my dressing station in the Sappers and Miners Redoubt indicated. There we were very heavily shelled. Four times we were obliged to lower the Red Cross flag as it acted as a target. This was due I should imagine to the proximity of a Battery which had taken up its position quite close to us as, when the Battery moved away, the enemy ceased shelling the dressing station.

I brought up my army transport carts quite close to the Dressing Station under cover of darkness.

The wounded poured in all that evening and during the whole night and early hours of the morning. The Dressing Station was sniped during the night but without serious consequences. Convoy after convoy, each of which was accompanied by a responsible person, we sent back from the Dressing Station that night. The dhooli bearers, cooks and in fact every man of my personnel worked continuously all that night and early next morning. We had about 70 servants, British and Indian patients with us, at dawn to whom we had given every available article of covering including even mackintosh sheets and Willesden canvas covers to protect them from the intense cold of that dreary night.

The agony caused to the wounded that night by evacuation over between two and three miles, of uneven country, in ordinary army transport carts, I shall never forget.

At the Dressing Station that night every patient that passed through had plenty of milk, cocoa, tea, etc., and biscuits.

On the third day of the battle we got orders to establish our Dressing Station on our right front close to the river. This order was received from the General Officer Commanding in the afternoon of the 8th January. Here we erected temporary shelters for the wounded as it rained during the night. We evacuated all our patients and received orders next day to accompany the column on its march to Shaikh Saad where we arrived on the 9th January 1916.

The transport of the wounded during the Shaikh Saad action was particularly bad. Motor Ambulances could have been used (but they were not available) with very little preparation in road-making. Certainly ambulance waggons could have been used here, as they were used in subsequent operations, with enormous comfort for the sick and wounded.

We remained at Shaikh Saad a couple of days during which I saw the sick and wounded brought forward. I then saw them being taken off the Julnar to a camp, not far from where my Field Ambulance was camped or rather bivouacked, and asked Lt.-Col. Mawhinny and Major Murphy if my men could help. This they did. I voluntarily tried with my own and that of my personnel's aid to help the enormous number of sick and wounded both British, Indian and Turk in this camp. Who was in charge of this camp?—Major Murphy, I.M.S. was, and this officer seemed to have no assistance.

I found that there were practically no arrangements for food for these patients. British officers and men and also sepoys bitterly complained about it. I gave them as much as I could spare from my own field ambulances and succeeded in getting plenty of food for them from a S. and T. Officer. I got my cooks and doolie bearers to cook the food and had it distributed by my nursing orderlies and personnel. A number of men of the Leicester Regiment also helped to cook and distribute the food.

Was Major Murphy then in the camp?—I saw Major Murphy some time about 9 or 10 P.M.

Had Captain Ellcome, R.A.M.C., then arrived?—I did not see him and I don't think he had arrived.

I went around that night and I saw that every one got some food.

I remember seeing Major Murphy that night and he thanked me for all I had done.

Next morning I again busied myself and my personnel in attending to these sick and wounded—cooking for and feeding them and dressing their wounds.

The patients were again moved that day to another site for a camp. I turned out my personnel to assist.

My personnel, in addition to doing the above work which I put them on out of sheer humanity, were obliged to carry on their duties in the field ambulance in addition. Do you think that Major Murphy, I. M. S., was looking after his patients properly and doing all he could have done for them?—I consider the answers to this question should come from the A.D.M.S. or D.D.M.S. and not from me.

On the evening of the 12th January 1916 I crossed, with my field ambulance, to the left bank of the Tigris and about fifteen minutes afterwards accompanied the 28th Brigade on a night march. The Brigade came into action on the afternoon of the 13th January and I established my Dressing Station in Chitab's Fort in accordance with the orders of the G. O. C. Brigade. Here we collected all our wounded who numbered six hundred British and Indian. Every patient was dressed, fed and sheltered under blankets, Mackintosh sheets, etc. The night was bitterly cold. I had the

usual arrangements for feeding patients who got milk, soup, cocoa, tea and biscuits.

I always carried with the first line transport two boxes of biscuits, tea, sugar and cocoa in addition to milk and soup so as to be ready for all emergencies.

Orders were received from General Kemball, the Brigade Commander, who slept that night on Chitab's Fort, to retain and not to evacuate any sick or wounded. Next day orders were received from G. O. C. to establish field ambulance on the river bank about two miles distant.

At 2 P. M. that afternoon the move of 600 patients by two sections of a field ambulance began. The seriously wounded were conveyed in stretchers and the rest in army transport carts to the appointed place. Here regimental fatigue parties and the ambulance personnel erected bivouacs for all the patients. The supplies columns had in the meantime come up, and the patients got plenty of food during the time they remained in the field ambulance. That night was very wet and stormy. Next day most of the patients were evacuated on to river boats and barges.

Nothing eventful happened until the action of Umm-al-Hannah the 21st January where I and my Field Ambulance again accompanied the 28th Brigade into action. We left camp at 5 A. M. on the 21st January and the Brigade came into action about 11 A. M. that morning. The field ambulance was obliged to keep in rather close touch with the Brigade that day as owing to the heavy rain (which continued into the following morning) it was difficult to see the troops even at a short distance, and furthermore, the rapid flank movements necessitated more intimate contact than usual. The dressing station which at other times would have been rather too far forward I established in some trenches and owing to the haze was able to put up a few tents. Other shelter was also erected as the rain poured piteously down, that afternoon. The wounded came in large numbers and I evacuated them by stretchers and army transport cart, as fast as possible. Every wounded man had brandy, milk, tea or soup. General Kemball came to the Dressing Station for the second time that afternoon and then asked me if I could get the wounded back as the Brigade was about to fall back. I said certainly. I had then only about a hundred left as I had sent back quite a large number. We went back about a mile where I established a Dressing Station under an officer. I collected all the wounded and sick who had been pouring in as well as those I brought back, and conducted the convoy myself to the nearest ship. We arrived after a most trying journey across country at the S. S. "Salimi" some time about 12 midnight or 1 A. M.

I shall never forget that journey. The wounded and sick were in army transport carts and my personnel and myself were on foot. We started off by crossing a nullah in which was three feet of water and then stumbled across country sinking every step knee-deep in mud. We were obliged to take a zig-zag course to enable the carts to avoid ditches and other obstacles. It was a terrible night, bitterly cold with a driving sleet. We were wet through and had no food all day. I remember I had an attack of ague when I reached the ship. With great difficulty we got our sick and wounded up the two slippery steep planks which formed the only means of getting on the ship. The ship was overcrowded and understaffed. When we finished getting our own sick and wounded on board, we put other sick and wounded whom we found lying in the mud, in the vicinity of the ship, also on board. When this was finished we got into the carts and start-out for our Dressing Station. We found that it was almost impossible to find it and after some time tracking back across country the carts were unable to get on further in the dark, so we were obliged to remain there benumbed with cold and rain, until day-light when we were with great difficulty able to reach the Dressing Station. We were almost dead with fatigue and exposure and our hands and feet were greatly swollen. On my arrival at the Dressing Station the Medical Officer there thought I was going to collapse. I described my personal feelings and experiences to show what a dreadful time the wounded and sick had on the day of the 21st and the night of the 21st and 22nd of January 1916. The sick and wounded who had been brought into the Dressing Station during the night were evacuated next morning.

On the morning of the 23rd January I established my Dressing Station in a chosen place where it became the advanced Dressing Station for subsequent operations during the actions in January.

Were you short of Medical equipment, comforts or drugs? No, there was no shortage of any of these in the field ambulance under my command. This, however, was due to foresight in having always a large reserve of the above in my ambulance as the defective transport arrangements would have frequently left me short of drugs and equipment if I depended on even a moderately quick delivery of a consignment of these articles from Basrah or even from Amarah.

About the middle of February my field ambulance became the medical unit for Corps Troops and ceased to be the field ambulance of the 28th Brigade. During the time I was with the 28th Brigade General Kemball and his staff afforded me all the assistance they could give and carried out any suggestions of mine for the benefit of the wounded and efficiency of my field ambulance.

Did you see the men who were disembarked from the "Julnar" after the action of the 21st January?

No.

Were the medical arrangements for the Force during January defective? Yes, I consider they most certainly were but not more so than those which prevailed throughout the different branches of the Force during that month. The defects I consider to be due to the following causes:—

I. Insufficiency of general transport both by land and river. Therefrom arose the reason why the sick and wounded had to occupy ships and barges just vacated by horses and mules.

The insufficiency of the S. and T. Corps in forwarding Medical equipment drugs and comforts.

The absence of motor and horsed ambulances and River Hospital ships.

The inability to rapidly evacuate casualties down the lines of communication. (I have seen the wounded who had been collected on the River bank after an action obliged to remain there over night without being sent back to the tent section of a field ambulance. What I saw occur in the Nasiriyah operations in July 1915 I again saw repeated in January 1916.)

II. Insufficiency of personnel.

Insufficient subordinate medical personnel and followers.

The recall of trained Nursing Orderlies to their regiments before an action and the substitution therefor of wholly untrained orderlies. Neglect in searching for the wounded after an action, *i.e.*, the regiment or the brigade in reserve ought always send out a large body of men in extended formation to search the battle-field for casualties as an action is over especially if the enemy has retreated. I quite admit this cannot be done if there is a great shortage of troops.

III. Defective and inaccurate information given to the Medical Authorities by the General Staff as to the probable number of casualties considering the strength of the equipment of, and the position occupied by the enemy.

Do you think that the Medical Administrative officers up the Tigris were always sufficiently insistent on getting what they wanted from the General Staff? I do not think so but this is only my impression.

Were you present at the action of the 8th of March 1916? No as I had proceeded to Basrah for dental treatment before that date, but my field ambulance under command of Captain Hislop, I.M.S., was present at that action.

Was there any shortage in medical equipment, drugs or comforts during the April actions? With the exception of lime juice which the Supply and

Transport Corps could not supply, there was no shortage of these in the field ambulance under my command.

During April the field ambulance functioned as a hospital and we were able to do our patients well.

What are the definite needs in your opinion at present? The following suggest themselves at the present time to my mind:—

- (1) Adequate and proper land ambulance transport—each ambulance should have at least a few motor vehicles.
- (2) Trustworthy river hospital steamers with capable and energetic medical Officers in charge of them.
- (3) A careful selection in the appointment of Medical officers who are not only energetic but capable, from a military point of view, of commanding Field and other units.
- (4) Combined field ambulances should not exist. British sick should be treated in British field ambulances and Indian sick in Indian field ambulances. Up to February 1915 Combined field ambulances did not exist in Mesopotamia but from my experience the separate system was much more preferable. It is furthermore only just to British troops from aesthetic, sanitary and other points of view to have them treated and lodged at convenient distance from Indian troops.

The same holds good in my opinion as regards other combined medical units.

- (5) British service Medical Officers, *i.e.*, Royal Army Medical Corps officers should not have to look after Indian troops and followers unless in action or in emergency. This is not their duty.
- (6) British sick and wounded should not be carried in the same hospital ship as Indian sick and wounded. I have seen all too frequently I regret to say, British and Indian sick and wounded lying alongside each other. The British troops have frequently told me "they did not like it and it was not fair to them", and I am sure many Indians would prefer to be among their own kind. It is wrong from every sanitary and disease prevention point of view.
- (7) British troops should be looked after by R. A. M. C. and Indian troops by the I. M. S. The requirements for each are very different and each is better understood by his own service.
- (8) The equalising of periods in the field among Medical Officers by establishing a Field and Base roster. Some medical officers have been at the Base continuously for eighteen months and lesser periods, in ease and luxury, being enabled to get leave to India etc. while their brother Medical Officers have spent a similar length of time up at the front enduring the hardships and privations ensuing therefrom. Yet after the usual trend of affairs these feather bed soldiers have in many instances got more recognition for their services at the Base than those at the Front. This roster would enable officers and subordinates to have a period of rest at the base either for change sake or for health, in their turn. No doubt many would prefer to remain in the field but they ought to be given the opportunity of electing to do so. This matter has caused a lot of dissatisfaction among medical officers at the front.

I reported sick at Orak on the 28th April 1916 and was sent to India sick, reaching Bombay on the 11th May 1916 *i.e.*, after continuous field service for over 18 months.

F. T. DOWLING,

Capt, R. A. M. C.

Letter from Lieutenant-Colonel R. N. Gamble to Major-General A. H. Bingley, dated 12th June 1916.

You asked me this morning if I could remember details of Medical establishments when I was in Mesopotamia as G. S. O. to Sir Arthur. I find on reference to my Pocket Book that the distribution of Medical Units on April 9th 1915, just before Shaiba and the day Sir J. Nixon took over command was as shewn over leaf. I do not know if this will be of any use to you, but send it in case it may be so.

With regard to the question of draught for steamers asked for Tigris navigation I remember the telegram we sent fixing draught at 3' 6" - the subsequent telegram stating 4' 6" to the best of my belief was our acceptance of the best we could get, there being no 3' 6" available, but this I cannot vouch for; it really was a Q. M. G., rather than a General Staff question, but that was the cause of the modified demand as far as I can recollect.

Distribution Medical Units I.E.F. D. on 9th April 1915. Where located.

No. 3 A British General Hospital	2½ sections	}	Shaikh Mohamerah's Palace Basrah.
No. 9 Indian do. do.	6 „		
No. 19 Combined Clearing Hos- pital	{	2 „	at Base.
		1 „	„ Ahwaz.
		1 „	„ Garmatali.
No 57 Indian Stationary Hospital	{	6 „	A Fritz Ferdinand Basra,
		2 „	at Shaiba Fort.
Convalescent Depôt	on S. S. Franz Ferdinand.		

Rest Station for sick Convoys at Basrah near supply Depôt No. 4 Advance Depôt Medical Stores at Basrah.

X-Ray. Section at Indian General Hospital, Basrah.

Field Medical Units.

No. 1 combined Field Ambulance	at Kurnah.
No. 2 do. do. do.	" Shaiba.
No. 3 do. do. do.	(3 sections), Makina Masus.
No. 4 do. do. do.	at Ahwaz.
No. 106 do. do. do.	Makina Masus.
No 131 Indian Cavalry Field Ambulance (3 Sections)	Makina Masus.
All of 5 Sections except No. 3 of 3 Sections.	

N. B.—All Corps and units have their full complement of medical personnel and equipment.

Transport on 8th April 1915.

At Shaiba.—90 Packmules, 97 riding mules, 100 carts, 1226 ponies.—

Statements of Lieutenant General Sir A. Barrett taken at Simla on 12th June 1916.

I went to Mesopotamia in the beginning of November 1914. I was present at Sahil. I was not present at Fao. I arrived on the day of the action at Saihan but it was conducted by General Delamair. There was a minor night attack before Saihan. There were two brigades at Sahil. The ambulances were ample. The casualties were 400 or 500. Our great difficulty was landing troops and stores. There was rain before the action and a shamal immediately afterwards. We landed no tents as we put all the sick on board at once. The wounded had to be out on the bank for the night after Sahil as the weather was too bad to get

them back to the ship. And they could not be collected at once. Several boats were swamped. The wounded were put on steamers. I cannot remember their names. The wounded were sent back to India by transport. There was no hospital ship. I was quite satisfied with the arrangements for the wounded on the transports.

I was thoroughly satisfied with the arrangements made in Basrah for the British sick and wounded. The arrangements for the Indians were not so good at first as the building was available and the site of the camp was low-lying and unsuitable. It was the best that could be done. I have the highest opinion of Colonel Hehir and consider him one of the best medical officers I have ever met. Colonel Adamson was in charge of the British General Hospital and Colonel Irvine was in charge of the Indians, both were capable officers and Medical staff was more than ample for all requirements.

Kurnah was occupied last in December. The sick and wounded came down in empty steamers. There were about 200 or 300 casualties. If there had been anything wrong in their treatment, I should have heard of it. I saw the men in hospital at Basrah afterwards and they made no complaints.

The next operations were at Rohta on the left bank of the Tigris in which there were 100 casualties. I cannot remember what medical units accompanied General Fry's force at Kurnah. It was presumably according to scale.

I cannot say what the medical arrangements were at Ahwaz. General Robinson went too far and his Force got surrounded and had to fight its way back. Any failure to evacuate the wounded was due solely to military reasons. I never heard any complaints about the treatment of the sick or wounded in these operations. General Robinson's force was reinforced by the 12th Brigade under General Davison.

I left before the battle of Shaiba. The medical arrangements at that time were adequate in all respects and I never heard of any complaints or any suggestion as to shortage of medical establishments. During my period of command in Mesopotamia it was understood that we would not advance beyond Kurnah or Amarah at furthest. I did not apply for any river hospital steamers. I did not consider them necessary. The evacuation of the sick and wounded was done on the Lynch boats. It was recognized that the occupation of Nasariyah was desirable for military reasons. We did not ask for electric fans. I cannot remember whether we asked for ice machines. I was told that Amarah was more healthy in the hot season than Basrah. No special arrangements were made for water supply. River water was drawn. It was not boiled, as fuel was difficult to procure. Colonel Hehir had doubts as to value of chlorinating.

There was a lack of sweepers more were asked for and sent. My demands were all met with reasonable promptitude.

My telegram No. 11-G. of 4th January 1915 was sent on expert advice I had no direct means of finding out about the river above Kurnah.

There was some delay in getting us steamers but with this exception my demands were met promptly and liberally, and there was no attempt to cut us down for financial reasons.

A certain amount of land ambulance transport is always provided in military operations but if casualties occur in a large scale a good many must be removed in any transport available including army transport carts. The medical arrangements made in Mesopotamia were far in advance of those made for the frontier operations of 1908 in which the wounded suffered greatly from lack of transport.

I was never asked by any of my medical officers to apply for any river hospital steamers, and though I see that they were necessary at latter phases of the campaign when the line of communication lengthened, it did not occur to me that there was any necessity for them at the time.

I heard no complaints about the food at the British General Hospital or any shortage of drugs or medical equipment during my commands. I was thoroughly satisfied with the medical arrangements.

Statement of Major General H. D. Keary, dated the 10th May, 1916.

(Received after printing of the Report)

My Division (3rd Lahore) left France completely organised and had the following medical units with it:—

No. 7 B. F. A.	} Field Ambulances.
No. 8 B. F. A.	
Nos. 111, 112 and 113 I. F. A.	

No. 3 Sanitary Section.

No. 3 (Lahore) Casualty Clearing Station (L. of C. unit).

These units reached Mesopotamia in various ship and at various times and have never up to the time of writing come together in this division—two of the field ambulances having been continuously detached from the division for work outside it, whilst my sanitary section was kept at Amarah as a Line of Communication unit.

The casualty clearing station has, I believe, been completely demobilised and has disappeared so far as the division is concerned.

The headquarters of the division arrived at Basrah on January 6th, 1916, and was sent up to the front at once by boat.

The Assistant Director of Medical Services and Deputy Assistant Director of Medical Services accompanied the division. The first stop was made at Amarah and there I first became aware of the very serious situation of the wounded who had been sent down from the front, principally from members of my Staff who had visited their friends amongst the wounded officers.

There were very many wounded whose wounds had received no attention whatever for days, beyond the application of a first field dressing on the battle-field and stores were rife of cases of gangrene and severe sepsis due to the lack of attention. Medical officers and subordinates were working beyond all human endurance, but were utterly unable to cope with the enormous pressure of work. At Basrah my Assistant Director of Medical Services had been told that he should take steps to improvise field ambulances at Amarah, to take on with him, but as there were neither personnel nor equipment of any sort available, this was impossible. I sent a wire to say so, and urged that all available units of my division should be pushed up immediately. The next halt of a few hours only was made at Ali-al-Gharbi. I there saw barges filled with wounded proceeding down stream. I had no time to make any personal inspection of the condition of things on these barges, but from the description of things given to me by the Officer Commanding Ali-al-Gharbi the condition was dreadful beyond belief—practically no medical attention—no personnel such as cooks, sweepers, etc.,—no proper food—utterly insufficient dressings, drugs, etc.—and nothing but the hard iron decks for even the worst cases to lie on. A similar state of affairs was found at Shaikh Saad next day. On the 15th January 1916 the Headquarters arrived at Orah. Here I again heard the most harrowing details of the sufferings of the wounded after the battle at Wadi, but I was not brought personally into touch with them as my duties took me to the right bank of the river to carry out operations there.

On January 18th Nos. 111 and 112 Indian Field Ambulances of this division arrived. No. 111 Indian Field Ambulance and a portion of No. 112 Indian Field Ambulance were detailed for duty on the left bank of the river, whilst the remaining portion of No. 112 Indian Field Ambulance was landed on the right bank, for duty during the impending operations. Fortunately these ambulances were well equipped with necessaries brought from France, and were of great service during the fighting from 19th-21st inclusive. My own part in the operations was confined to the right bank and was a comparatively minor one, our casualties amounting to a hundred odd. These were all collected and looked after by No. 112 Indian Field Ambulance under the superintendence of my Assistant Director of Medical Services and Deputy Assistant Director of Medical Services.

On the 21st January there were very serious casualties on the left bank, and owing to the pouring rain, the bitter cold, and the swampy condition of the ground, which rendered the collection of wounded a matter of extreme difficulty, the very greatest sufferings were endured by the wounded, who in very many cases lay out all night in drenching rain and severe cold. In many cases even senior officers did not arrive back at the river bank until some eight or ten hours after being wounded—their journey to the river bank having been made in rough army transport carts over some miles of almost impassable swamp and rough ground.

At the river bank the utter inadequacy of the shipping arrangements for evacuation became apparent, officers, men and followers, wound and sick (the sick including large numbers of dysentery cases), being crowded on to iron decked barges, with absolutely inadequate personnel and equipment, so that they had to travel down stream under conditions of very great hardship, without a vestige of that comfort which sick and wounded have a right to expect. I know that fuller details of the state of affairs have been given by competent medical and other witnesses who have seen the conditions themselves, and it is unnecessary for me to add further evidence to that which you must have already accumulated. Throughout no particle of blame can be attached to the medical officers at the front, who all worked unceasingly in attempting to cope with a state of affairs far exceeding anything they could possibly deal with at all adequately; but there must have been throughout a most serious want of foresight as well as ignorance of modern war, on the part of those responsible for this lack of preparation and necessary arrangements for collecting, treating, and transporting sick and wounded. It was not here a case of sudden rising or an unforeseen emergency, but a deliberately planned campaign which had been going on for 18 months during which there had been ample time to perfect arrangements; and yet such arrangements as had been made were superficial and inadequate in the extreme.

The question of properly fitted river hospital ships does not seem to have been seriously considered. I have heard that one was sent over from Burmah, and was sunk *en route*, but arrangements on a very much bigger scale should have been thought out and completed. Such barges as were utilized for the transport of sick and wounded were in every detail unsuitable for such use. The congestion caused by the heavy casualties on the 21st January was gradually reduced though without any material improvement in the means of river transport nor was any better means of land transport provided.

On January 31st No. 113 Indian Field Ambulance joined the division now concentrated on the right bank of the river. On February 18th No. 7 British Field Ambulance and on February 19th No. 8 British Field Ambulance arrived, thus completing the medical personnel and equipment of the division, as far as its field ambulances were concerned, although all the field ambulances were without transport. Up to the date of writing (May 10th) none of this land transport has arrived, the only means of transport being springless army transport carts, unprovided with hoods. The 3rd division undertook some minor operations on February 21st five miles up the right bank of the river and all serious cases had to be carried on stretchers to Orah. This could not have been done if there had been any serious fighting. Ambulance tongas and dhoolies have been frequently applied for, but have not been forthcoming, although their presence would have considerably lessened the sufferings of the wounded.

The next operation on a large scale began on the night of the 7th-8th March and fighting was severe on the 8th-9th. A force including my division advanced to attack the Es Sinn position, the advance being made over a distance of fifteen miles by road from Orah to the battlefield. No definite arrangements for the evacuation of wounded during these operations seem to have been made, although I personally pointed out that an operation on a large scale so far from the river required much consideration both as regards water and carriage of wounded, especially in the event of failure. As is well known the attack on the whole was a failure and my division alone suffered casualties of 1900 of which about 1400 wounded were collected into the various field ambulances during the night, all of whom were dressed and fed. At daybreak, orders for a general retirement were issued, and to remove the wounded all

supply carts had to be emptied to supplement the carts at the disposal of field ambulances for wounded, whilst every man who could walk had to do so.

Large quantities of supplies, including tents, rifles, ammunition and hospital equipment, were thus abandoned to the enemy. Some of the most severe cases were carried by stretcher bearers the whole 15 miles. These stretcher bearers had gone through a day's hard work before the march—packing up, etc. followed by a long night march—a whole day's collection of wounded during heavy fighting, the subsequent night being spent in searching for and carrying in the wounded that is 48 hours continuous hard work, with hardly any time to take food and on a serious shortage of water. That they should then have succeeded in bringing along these stretcher cases is a feat of endurance and devotion that can hardly have been excelled, and which merits the highest praise. The sun was very hot and no water was available either before starting the return march or on the march. Two brigades and the divisional artillery were left under my direction to protect the exposed flank during the retirement. A request for some empty carts to carry any wounded was met with the reply that none were available. As the flank guard was in immediate contact with the enemy and there was every prospect of severe fighting the outlook for the wounded was, to say the least of it, very grave. Fortunately owing to want of energy on the part of the enemy, the retreat was not heavily pressed. The only way I had of bringing back my wounded was on artillery wagons and gun limbers—a very sorry substitute for ambulances.

From this date (March 9th) to April 23rd, the division has had sufficient personnel and equipment to deal with wounded on the battlefield, although at times there has been some pressure owing to the diversion of divisional personnel and equipment for use outside the division. The land transport arrangements have remained the same and the arrangements for evacuation down stream have not, so far as I am aware, greatly improved.

One hospital ship (a gift to Government) did arrive and doubtless did much to help, although twenty well fitted ships with personnel would not have been too many. The above has been the state of affairs so far as it has come under my notice and show clearly :—

- (1) a complete inadequacy of shipping arrangements, what was available even being entirely unsuitable,
- (2) an entire lack of any means of land transport, entailing the requisitioning of carts from the Supply and Transport thus reducing the carrying capacity for necessities such as food, water, ammunition, etc.,
- (3) grave deficiencies in the number of personnel of all grades especially on the barges, where the state of filth and misery was indescribable. The result of these deficiencies has been the breaking up of divisional units in attempts to improvise some means of dealing with the situation.

With regard to your question as to whether the defects have been since remedied, I may say that so far as I know they have only been to a slight extent improved. Hospital ships and personnel are still not available in the necessary numbers and the land transport remains the same. My tent divisions are still diverted from their proper duties owing to the lack of proper L. of C. units. The division is still short of officers and medical subordinates.

Finally I should like to say that I regard the so-called "medical" breakdown above referred to, as not a separate thing in itself, but as only a part of the result of the military failure to foresee what was going to happen in this Mesopotamian campaign and failure to organise the whole expedition on sufficiently large lines to ensure success.

As regards suggestions for improvement, most of them are obvious from what I have said. They are:—

- (1) Provision of sufficient well equipped river hospital ships.
- (2) Motor launches to work between the fighting line and advanced base.
- (3) Provision of sufficient ambulances or tongas including probably motor ambulances.
- (4) Provision of ample medical personnel of all grades, medical stores and medical comforts, and the establishment of depôts for such stores well up the river, so that they are immediately accessible for field units.
- (5) Special arrangements for sheltering troops and sick from the sun during the hot weather—tents being a quite inadequate protection.
- (6) Special arrangements for conditions likely to be met with here (such as heat stroke) such arrangements including a liberal supply of ice machines—methods for obtaining cold water, such as a large supply of good chaghals.

H. D. KEARY,

Major-General.

Statement of Captain S. W. Kyle, R.A.M.C., 20th Combined Field Ambulance, dated 1st June 1916.

(Received after printing of Report.)

I landed at Basrah with the 20th Combined Field Ambulance on 6th December 1915.

This ambulance was mobilised short of one officer at Basrah; Major Broome I.M.S., the Commanding Officer, was sent sick to hospital and was not replaced. Our Senior Assistant Surgeon was also sent sick to hospital in Basrah and was not replaced.

We proceeded to Ali-al-Gharbi, where the relief force for Kut-al-Amarah concentrated and were attached to the 35th Infantry Brigade (Left Bank Force).

On 4th January 1916 two sections of the ambulance were detached for duty with another Brigade and were in charge of one officer—Captain Lack, I.M.S.

The arrangements for transport of sick and wounded on land was by army transport carts equipped with straw mattresses.

There was no clearing hospital nor was there any hospital ship with us at that time. The "Julnar" was called a clearing hospital ship but she was also carrying a divisional staff and I believe ammunition.

The Shaikh Saad battle commenced at mid-day on 6th January 1916 and the two sections of the 20th Combined Field Ambulance in charge of Major Gillitt, I.M.S., and myself were far from adequate for the collection, treatment and evacuation of the wounded on that day and night. From 4 P.M. on 6th until 8 A.M. on 7th January 303 cases were treated by Major Gillitt, I.M.S., and myself. The amount of work to be done in the ambulance station did not permit of any officer going out with the bearers who were collecting wounded. The ambulance was stationed well forward and had to be moved back next morning on account of shell fire.

The men of the Army Bearer Corps were out all afternoon and night assisting the regimental stretcher bearers in bringing in wounded.

At 8 P.M. in order to relieve pressure in the ambulance I took a convoy of wounded to the river bank expecting to find the "Julnar" there, which we had been informed would act as a clearing hospital ship. On my arrival at the river I found that the "Julnar" was on the right bank and I was unable to get any reply to messages I sent to her by wire. As I was needed at the already overcrowded field ambulance station, I left the convoy in charge of Captain Lack, I.M.S. The wounded officers were temporarily accommodated in a tent belonging to the 92nd Punjabis and shelters were improvised for the men.

The battle continued during the 7th and night of 7th-8th during which period No. 20 Combined Field Ambulance was overwhelmed with work. Its normal accommodation is one hundred lying cases. I estimate roughly that the number of cases which we treated during this period was nearly two thousand.

On 8th January, fifty lying down cases were put on a barge by orders of the Assistant Director, Medical Services, 7th Division; and on the 6th-7th night about the same number were taken to the river bank. All the others were of necessity kept in the field ambulance, until we handed them over on the afternoon of the 9th January having received orders to move forward with the force.

It is to be borne in mind, that there was no means of clearing even the milder cases. This large number of cases could not be protected, fed, properly dressed, made fairly comfortable or even examined by the staff of a complete field ambulance.

No. 20 Combined Field Ambulance was short of two officers and one senior assistant surgeon.

Regimental medical officers and others frequently implored us to supply bearers, stretchers and carts in numbers which we were unable to supply. The 32 army transport carts fitted with mattresses supplied for the transport of wounded were supplemented by army transport carts without mattresses.

There was no clearing or stationary hospital at or near Shaikh Saad. The "Julnar" was unsuited for and was not equipped for the work of a hospital ship.

The nature of her cargo necessitated her moving forward with the Army in its advance. Even any spare room she had was being used for sick and wounded.

She was being called for by medical units on both sides of the river at once.

"P" boats, barges, and other river craft which brought up stores, etc., from the base were eventually utilised for the reception of wounded and sick. They were quite unsuited for the work, being unprotected in the case of the barges, insanitary and having no cooking places at the disposal of the nearly always insufficient staff.

Even at the end of January 1916 when I was detailed to take a convoy of sick and wounded down stream in the "Malamir" I asked the Captain to let me have one of the two cooking galleys for the use of the hospital staff. In response to this request I was told that "I might use one galley for boiling water for British cases."

Very good river work was continuously done by Mr. Chalmers and his boat the "Aerial."

On the night of 6th January tents were used for sheltering wounded at No. 20 Combined Field Ambulance station. The number of tents available was insufficient for the number of cases treated (nearly 300). Trenches in addition were dug but it rained and these became of doubtful advantage. Beds or mattresses were not available for wounded in the field ambulance. Extra blankets were obtained by taking them off the 2nd Line Transport of Units fighting, supplemented by some from the "Julnar" and the Supply and Transport.

On the night of 7th January, cases coming in could not be all immediately accommodated in tents. On the morning of the 8th we had about 200 tents pitched. On the night of the 8th all cases were in tents.

Soup, tea, cocoa and stimulants were supplied continuously at Shaikh Saad by the ambulance staff. Other food was obtained from the Supply and Transport Corps and distributed as rapidly and in as great quantity as the size of our staff permitted.

The ambulance personnel and equipment for cooking and distribution of food was quite insufficient for the feeding or repeated supply of drinks to all the wounded in our camp. In addition to this the weather conditions were very bad and rendered what could be done much more difficult.

A combatant staff officer who lived, slept and fed on board one of the ships moored alongside came ashore on the morning of the 8th and criticised unfavourably the general arrangements. The staff of No. 20 Combined Field Ambulance worked almost continuously for three days and three nights at this battle and then marched out with the Army in its advance to Shaikh Saad village.

Water Supply.—Tigris water uncleared was used at Shaikh Saad. When a unit is moving it is impossible to have sufficient cleared water until at least six hours after arrival at any place and then only if near to the river. Sedimentation of water for a field ambulance with a large number of cases is a laborious undertaking and cannot be done hurriedly. I can only suggest that a sanitary section or part of one be detailed for this work when Medical Units are mobile, or that a large number of pakals, carts or a tank barge be available.

Latrines.—When moving trench latrines were used.

Wounded were attended by sweepers with⁴ bed pans and urinals. The number available at Shaikh Saad was inadequate.

Washing.—When a big action takes place, washing in a mobile medical unit must be more or less suspended except in the case of surgical work and drinking utensils in small quantities.

The inadequacy of bearers, and stretchers, the absence of springed ambulance carts or tongas and prepared roads or paths resulted in great suffering to the wounded, increase in the severity of wounds and risk of sepsis; increased the chance of severe haemorrhage and gangrene, and in some cases combined with prolonged exposure caused death.

Failure of the administrative staffs to recognise the magnitude of the task before them at Shaikh Saad, or if they realised it, their failure to insist on sufficient field ambulances, clearing and hospital ships being at the disposal of the Commanders of the troops engaged, was the cause of the breakdown.

Before the advance on Shaikh Saad, the general opinion was that there would be no fighting between Ali-al-Gharbi and Kut-al-Amarah. I heard one Staff officer express this view.

I do not consider that lack of energy on the part of any one I was concerned with was responsible for any of the defects. Since the medical organisation in the advanced area was understaffed and overworked, the cause of the defects must be looked for further back.

The physique of the men of the Army Bearer Corps mobilised in 1915 is bad.

The above statement and opinions refer to the battle of Shaikh Saad of 6th, 7th, 8th January 1916, on the left bank of the Tigris. The same conditions obtained at the battle of Wadi on 13th January but here the numbers wounded were less. After this date more ambulances were present and conditions improved on land. The conditions of transport of wounded by water were much slower in improving. Until a number of ships for hospital work and for nothing else are available the transport of sick and wounded down stream can only be done with difficulty, slowly, and with bad results.

A number of small motor or steam boats for ambulance work in the advanced area are essential.

A covered in barge equipped as an operating theatre with a permanent staff ought to be stationed in the advanced area for the reception of certain types of surgical cases.

The Staffs of all medical barges and ships ought to be permanent and not collected hurriedly as did occur in January 1916.

Statement by Colonel H. M. ADAMSON, Army Medical Service, late Assistant Director, Medical Services, 12th Division, Indian Expeditionary Force "D," Eastbourne, dated 1st June 1916.

(Received after printing of report.)

In this report I can only write from memory as I have no records in England.

From November 1914 to 15th April 1915 I was in command of No. 3 A. British General Hospital, which mobilized at Poona and on arrival at Basrah was located in a building known as the Sheikh of Mohammerah's Palace.

The hospital was mobilized on a modified scale from that laid down in India Army Regulations, but I am unable to state from memory the actual reduction from the normal scale. There were in all only 7 Medical Officers with the hospital including myself in command. For the first few months, after the wounded from the earlier fights had been transferred to India, the personnel was able to carry on the work of the hospital without much difficulty, but they were always overworked owing to the amount of work required in getting the building into a more or less comfortable condition. Assistance had often to be obtained from the field ambulances located in the neighbourhood. With the onset of the hot season the amount of sickness rapidly increased and owing to shortness in personnel the work of carrying on the work of the hospital was difficult. None of the personnel invalided to India were ever returned or replaced, and men had to be lent by the field ambulances to the General Hospital. Representations on the matter were of no avail and no additions to the personnel received up to the time I handed over command. Part of the personnel such as sweepers, bildars, washermen, &c., were mere bazar coolies engaged by the Supply and Transport Corps in the bazar in India; these men had never had any experience of hospital work and had to be taught. Most of the regular A. H. Corps men had been taken for the hospitals which were sent to France and the personnel of this hospital could in no way be compared with that of these hospitals as regards efficiency. The hospital carried with it its equipment of tents but few of these were ever used owing to want of space and they were returned into Ordnance Stores at Basrah.

There was practically no furniture for a hospital located in a building, and tables, cupboards, bedside tables, mosquito net frames and innumerable other

articles had to be made by native carpenters in the hospital itself—these men were still at this work when I left.

The Medical and Surgical equipment was generally satisfactory, though only one capital case of surgical instruments was included instead of three—a second case was obtained later from the advanced depôt of Medical Stores. Large quantities of dressings, etc., were supplied by the Red Cross Organizations in India and proved of the greatest use.

Medical comforts were always obtainable from the Base Supply Depôt and in addition many comforts were sent by the Red Cross Associations. Up to the time (16th April) I handed over Command of the hospital to Lieutenant-Colonel Collins, R. A. M. C., I never had any complaints, and I consider that the sick and wounded once they reached the hospital were as well looked after and made as comfortable as was possible under the circumstances.

Expedition to Ahwaz.

On 15th April 1915 I was appointed Assistant Director, Medical Services, of the 12th Division, Indian Expeditionary Force "D," which was then being formed at Basrah and I remained with this Division up to the time I was admitted to hospital suffering from Paratyphoid Fever (September 1915).

The Division was first employed on the relief of Ahwaz which was practically besieged by the Turks and Arabs. The Hospital Units detailed for this force were:—

					Sections.
No. 3	Field Ambulance	...	...	...	5
No. 106	" "	...	...	...	2
No. 131	Indian Cavalry Field Ambulance and at Ahwaz...				3
No. 4	Field Ambulance	...	...	...	5
No. 19	Combined Clearing Hospital	...		...	2

The two latter hospitals remained at Ahwaz throughout the expedition.

The field ambulances which took the field were each supplied with a number of riding mules for carrying men who fell out on the march. The expedition lasted from 23rd April 1915 to the middle of June. There was little fighting and few wounded (2 British and about 30 Indians) so that there was little difficulty in regard to the transport of wounded men. The amount of sickness was, however, large though not of a serious nature being mostly attributable to the excessive heat and the trying conditions under which the troops were operating. On 10th May 1 motor ambulance and 2 motor lorries joined the Force, from Ahwaz—these were of the greatest use in transporting sick to Ahwaz—a distance of about 19 miles across the desert. The motor ambulance was employed for all serious cases but every few days a large number of sick had to be sent back by returning empty supply carts and the 2 motor lorries. This was the only possible way of getting the sick back to Ahwaz without a fleet of motor ambulances, it would certainly have required 10 of these constantly running to transfer the sick. The carts were made as comfortable as possible with sacking and straw and except for short distances the going was quite good—all sick convoys were sent by night so as to avoid the great heat during the day. The heat during the expedition was very great, 120° or over being frequently registered in the tents.

Personnel of Field Ambulances.

The field ambulances were always to some extent short of their full personnel, as no reliefs had been sent from India to replace casualties since the commencement of the war, and this shortness steadily increased as time went on but no men could be obtained to replace those in hospital or invalided. The hospitals at Ahwaz could give no assistance as they were full to over-flowing and none of their personnel could be spared.

Equipment of Field Ambulances.

The equipment was according to the scale laid down for field ambulances but on leaving the Karun river to cross the desert a considerable amount of the equipment had to be left behind owing to shortness of transport and only minimum of tents for sick was allowed to be taken. There was always shortness of transport for the medical units on this expedition, none being allotted to the medical units till they had disembarked from the river steamers which conveyed them up the Karun river. The equipment left behind was later sent on to the Units at Illah Camp on the Karkeh river.

Medical Comforts.

Although the supply of comforts occasionally became very low there was never any actual failure in the supply except as regards preserved milk—the latter became so short that for a time it could only be given to the most serious cases. I continually impressed on the Officer-in-Charge of Supplies the necessity for keeping up his supply of Medical Comforts and gave him a list of what I considered he ought always to have in hand, but owing to non-arrival of supplies from the Base Supply Depôt at Basrah he was not always able to keep up the supply. It was through no fault of the Officer-in-Charge Supplies that the milk ran short, for I know that he indented for it.

Throughout the expedition the medical units worked under very trying conditions, owing to the excessive heat and the nature of the country in which the military force was operating, and I consider that the medical arrangements worked quite satisfactorily under the circumstances.

It has to be borne in mind that there are no railways in that country and that all supplies have to come from India by sea, to Basrah, and from thence by river steamers and barges to the various forces operating up the different rivers. Hence there were bound to be delays at times in supplies reaching the forces.

No. 4 Field Ambulance remained at Ahwaz throughout and acted more as a stationary hospital than as a field ambulance. Both this hospital and the clearing hospital were at times very much over-crowded owing to non-arrival of steamers to convey sick to the base.

Many of the sick were treated in bomb proof dugouts, practically all the work of constructing which was performed by the personnel of the hospitals. These dugouts were much cooler than tents and very comfortable though somewhat dark.

The force returned to Basrah in the 3rd week in June, to refit prior to proceeding on the expedition to Nasariyah. From the start of the expedition up to its return to Basrah nearly 3,000 sick were treated in the field ambulances.

Nasariyah Expedition.

The expedition started from Basrah by river steamers on 25th June 1915.

The Medical Units accompanying the force were :—

No. 3 Field Ambulance	...	5 sections.
No. 131 Cav. Fd. Ambulance	...	1 section.

The force at the commencement consisted only of one Infantry Brigade and Divisional troops, but later on was reinforced by the 12th Brigade of Infantry and just before the battle of Nasariyah by the 18th Infantry Brigade. The 12th Brigade brought no field ambulance with it but had its regimental medical officers; the 18th Brigade had 1 British Section and 2 Indian Sections of field ambulances. Two sections of No. 106 Field Ambulance from Kurnah never reached the force, owing to the steamer on which they were going aground in the Hammar Lake.

Personnel of Field Medical Units.

No. 3 Field Ambulance which left Basrah with the force was considerably short in personnel especially bearers—this ambulance had only returned from the Ahwaz expedition a few days before starting on this expedition and had little time to refit. None of the men previously invalided to India had returned to duty with the ambulance nor had they been replaced by others. The ambulance started short of one Medical Officer and one or more sub-assistant surgeons but I am unable to state from memory what was the exact number short. I represented this shortness in personnel to the Deputy Director, Medical Services of the Force. I also ask for a stationary or a clearing hospital to be sent up the Euphrates. I was informed that no additional personnel was available and that I must carry on with what I had, and that the sick and wounded should be sent direct to Basrah.

On my representing to the General Officer Commanding the Force the necessity for a clearing hospital into which the field ambulances could evacuate their sick he wrote or wired to the Deputy Director, Medical Services, who replied, so far as I can remember, that a clearing hospital could not be sent and that the sick and wounded should be sent to Basrah. This was after the capture of Nasariyah when the field ambulance became greatly overcrowded. I may mention that at this period there was only one clearing hospital and one stationary hospital with the Forces in Mesopotamia. There is no doubt that application was made to India for more hospitals and for more men of the Army Hospital Corps and Army Bearer Corps to replace casualties both by Corps Commander Sir J. Nixon and by the Deputy Director, Medical Services of the Force. Up to the time I left Nasariyah early in September, no additional hospitals had been provided nor had the casualties in the personnel of the ambulances been replaced. Colonel Jennings, I. M. S., who was in command of No. 3 Field Ambulance will be able to supply information on the shortness of personnel in his ambulance which was the one chiefly affected. The Sections of Field Ambulances which arrived for temporary duty from the Tigris, were so far as I can remember, complete or nearly so as regards their personnel but they remained with the Euphrates Force for only a week or two.

The shortness of personnel was severely felt after the battle of Nasariyah, when well over 300 wounded were admitted, the hospitals having at this time well over 300 patients already there. The hospital accommodation was for 225 but at one time there were over 700 in hospital.

There was ample accommodation as a large number of E. P. tents were received on loan but the work thrown on the personnel was excessive and work had to be carried on night and day. A light draught river steamer fitted up as a hospital would at this time have been of the greatest advantage, both for collecting the wounded from the dressing stations on the banks of the river and later for conveying them to the general hospital at Basrah.

Equipment.

All the Field Medical Units had their full complement of tents and equipment but this would have been totally inadequate for the large number of sick and wounded at Nasariyah had it not been that many E. P. tents were received in time from Basrah and others on loan from combatant units.

Comforts.

During the advance up the Euphrates there was a shortage of preserved milk and later arrowroot and brandy were short at Nasariyah. I brought to

the notice of the General Officer Commanding in July that the Base Supply Depôt at Basrah was unable to comply with the requisitions for preserved milk. The Officer in Charge of Supplies had a list from me of the quantities of Medical comforts he ought always to endeavour to have in hand but the difficulties of transport were very great and it sometimes happened that expected supplies did not arrive. For some time before I left the Hammar Lake was not navigable by steamers of any sort and supplies had to be brought up by native boats.

After the capture of Nasariyah an ample supply of fresh milk was soon obtainable for the sick, fowls were abundant, also fresh fish and vegetables. An ice factory was soon started, and as much soda water as required was obtained from a regimental factory.

Remarks.

Throughout the expedition to Nasariyah all sick and wounded were treated in field ambulances until they reached the General Hospitals at Basrah. After the capture of Nasariyah the field ambulances had to act as stationary hospitals, patients often having to be kept for several weeks in these hospitals which I need scarcely remark, are not equipped for accommodating clothing, and feeding sick and wounded men for an indefinite period. Blankets, pillow and mattress cases were obtained from Basrah and palm leaf beds were obtained locally, and every endeavour was made to render the patients as comfortable as possible in the ambulances until they could be evacuated to Basrah.

Applications for additional medical units and personnel were usually met with the reply that none were available. What representations were made by the D.D.M.S. to Army Head Quarters, India, I am unable to state, but I am sure that he did do so.

The 12th Division of which I was A.D.M.S., was operating under very unusual conditions both as regards climate and the nature of the country in which the force was operating; the difficulties of transport were always great and it frequently happened that supplies were delayed through steamers running aground.

The hospital accommodation was always deficient as regards medical units in the Field, especially so in such a notoriously unhealthy country as Mesopotamia. Casualties amongst the personnel from death or invaliding were seldom replaced so that as time went on, the personnel of the units became steadily diminished through the failure of reliefs from India. At an early stage of the operations one field ambulance was broken up and one of its sections added on to each of the other field ambulances, the reason for this I could never ascertain. It diminished the number of medical units but increased the number of beds in each of the remaining field ambulances from 100 to 125 and thereby upset all the tables laid down in regulations for a field ambulance of 100 beds.

With regard to river and ocean-going hospital steamers no river steamer was fitted up as a hospital, up to the time I left Mesopotamia. In the early stages of the War every available river steamer was required for the conveyance of troops, supplies and animals and these were not sufficient for that purpose. A couple of shallow draught river steamers fitted up as hospitals would have been of the greatest advantage in conveying sick and wounded from up river to the general hospitals at the base and these might very well have been provided after the first 6 months' experience of the disadvantages of conveying sick and wounded men in steamers which were constantly carrying troops and animals and which were in a far from sanitary condition.

Nothing could have been better than the ocean-going hospital ships which sailed between Basrah and Bombay. They were most comfortably fitted up and all were provided with the most up-to-date surgical and medical equipment.

I can furnish no information regarding the medical units up the River Tigris as I was never up that river.

Letter from Major F. N. Thorne, 1st Royal Sussex Regiment (Commanding 1-5th Buffs), to Sir William Vincent, dated 6th June 1916.

(Received after printing of the report.)

The medical personnel and equipment were absolutely inadequate. On January 7th at the river bank the wounded were lying about in heaps with only first field dressings on (put on by regimental Medical Officers). There were very few Medical Officers about ; I saw two personally who were working very hard and doing what they could, some other officers and myself helped to get tents off ships and pitch them and we got compressed fodder to make beds of. Supply and Transport Officers and Non-Commissioned Officers had tea made and we gave the wounded tea. Bread and cheese and a few blankets were procured from somewhere. This, as far as I know, is typical of what happened after all the battles in January. Army transport carts, usually without mattresses, were used to bring in the wounded and of course were extremely uncomfortable. The ships used for wounded were ordinary river boats and were exposed to rain and all weathers (some of them had tarpaulins usually not in good repair) and all the covering available for the wounded was a blanket or *rezai*. The medical staff and equipment were quite inadequate. The only boat that I know of that brought the wounded from the advanced dressing stations was the "Aerial." As far as I could see the majority of wounded only had tea, biscuits (a very small amount of bread was available occasionally) and cheese which was procured by officers from the Supply and Transport. There appeared to be absolute scarcity of hospital comforts. About January 11th or 12th Major Matthews, Durham L. I., and myself were asked by the Deputy Assistant Adjutant General (Major Stapleton) to go with Lieutenant-Colonel Irvine, I.M.S., who would tell us what to do, to the other bank and help to organize a hospital camp. We went over and found about 600 British wounded crowded into tents with only one Medical Officer (a Captain who was doing all he could) to look after them, we found that a certain amount of stores had been collected and were being looked after by a wounded sergeant. These consisted chiefly of tea, biscuits, bacon, cheese and sugar. Colonel Irvine gave us no instructions or advice, we found that all the ground round the camp had been used as a latrine both by British and Indian wounded. With Turkish prisoners we cleaned up the surrounding ground, burying excreta, etc., and digging latrines, telling off tent orderlies from the wounded who could walk and we managed to procure a case or two of milk. I think there were about 10 unwounded men who were helping as cooks and orderlies. There were a few cooking pots borrowed from a regiment.

After the battle on January 21st, I assisted to put wounded on the "P. 7." The wounded were brought in from the battlefield and advanced field dressing stations in army transport carts and put into hospital (or field ambulance) tents (but these tents had been struck in the morning and then repitched). It had been raining heavily and the ground inside the tents was wet, in many cases there were pools of water in the tents. Some officers and men carried the worst cases on stretchers from the hospital through the mud and rain on to the "P.-7" and put them on beds we had prepared for them made of compressed fodder and blankets found on the ship (chiefly regimental stores) and we got tea and biscuits and cheese from the Supply and Transport. There was only one Medical Officer on board (by chance) an assistant surgeon I think of the Black Watch who had been all through the fighting and was worn out but he worked splendidly. All the above remarks refer to the fighting from January 6th to January 21st. From what I saw the Junior Medical Officers did all they could. I enclose a statement from Lieutenant Macfadyen 1-5th Buffs which may be of value.

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F. N. THORNE, Major,

1st Royal Sussex Regiment.

Statement of 2nd Lieutenant W. A. Macfadyen, 1-5th Buffs, dated 6th June 1916.
(Received after printing of the report.)

On January 7th, there was an utter inadequacy of medical personnel and equipment on the battlefield.

On January 21st, there was utter inadequacy of hospitals and hospital steamers.

On the nights of January 7th and 8th, army transport carts were the only means of conveying the wounded back to the river. Stretchers were practically impossible to get in the front line.

On January 21st and for a few days after this date, the S. S. "Julnar" was greatly overcrowded with both sick and wounded British ranks—including officers being mixed up indiscriminately with natives. The awning of the top deck was not waterproof and many of the men got very wet. A certain quantity of *rezais* and, blankets were available naturally more or less wet.

On this date, hospital accommodation was apparently insufficient, as numbers of wounded—soaked to the skin and covered with mud, lay in the mud on the river bank for hours without attention.

January 7th, 13th and 21st. Arrangements at or near the battlefield—*nil*, with the exception of the aid posts run by the Medical Officers of the units engaged.

On January 21st, there were a few tents on the river bank; many of these had been pitched in the rain—so that the ground inside the tents was muddy and frequently there were puddles of water—also inside.

No beds or mattresses were seen—most men had a blanket wet—and some got *rezais*.

On January 21st on S. S. "Julnar" there was one soldier cook and 3 or 4 officers' orderlies. These men all worked very hard—doing all they could as regards giving the sick and wounded men tea and food. The next day some few men who were only slightly wounded or sick were organised—solely on the initiative of the units concerned—as mess orderlies. These men did their best, attended to men other than members of their own regiments as well.

Many men had bad diarrhoea and dysentery. The only food they got was bully beef, Delhi biscuit and a very little stewed tea.

- (1) January 21st. Many patients were soaked through with rain and mud for long periods and could not get any dry things to change into. In the end their cloths dried on their bodies. Badly wounded and exhausted men were frequently seen lying in puddles of water both on the bank and on the "Julnar".
- (2) They suffered from shortage of food and drink and even the little that they could get was very unsuitable.
- (3) They suffered greatly from exposure on the battlefield on both January 7th and 21st. A good many wounded died who might have recovered had adequate arrangements been made to bring them in, etc.

On January 21st, lack of personnel and also of equipment and tents was marked (*e. g.* tents belonging to regiments were freely given and taken off boats and put up on shore for use as hospitals. Even then there was a great shortage.)

On the "Julnar" on January 21st, there was an entire absence of any organisation—*e. g.* Dysentery patients, badly wounded cases and natives were mixed up promiscuously—the resources of the boat were not made full use of and want of industry, want of resource and want of energy on the part of the Medical Officer-in-charge "Julnar" seemed most prominently marked. The Medical Officer-in-charge "Julnar" was Major Murphy of the Indian Medical Service. It seemed to me that the more junior and regimental medical officers did all that was humanly possible for them to do.

W. A. MACFADYEN, 2nd Lieutenant, 1-5th the Buffs.

Statement of Lieutenant-General G. F. Gorringe, dated 18th June.

(Received after printing of report)

The 6th (Poona) Division arrived in Mesopotamia during November and December 1914, with the full complement of field ambulances, clearing, stationary and general hospitals, allotted to it by Regulations.

With the 12th Indian Division which arrived in Mesopotamia during March and April 1915, only one combined field ambulance was sent from India. The two British and three Indian field ambulances which arrived with the 6th Division were split up, and reformed into four combined field ambulances of two British and three Indian Sections each, and it appeared that normally two combined field ambulances were intended to suffice for each division; No. 106 Field Ambulance which arrived last, being attached to either division as occasion required. No addition at any rate for sometime was made to the clearing, stationary and general hospitals which had arrived for the 6th Division.

Very soon after the expedition had arrived in Mesopotamia, difficulty was experienced in obtaining medical personnel to replace casualties, and I understand that the Assistant Director, Medical Services, at that time was informed from India, that there would be great difficulty in meeting any demands for Indian Medical Service officers or sub-assistant surgeons.

Till April or May, 1915, that is, the onset of the hot weather and the arrival of the 12th Division, I understand the medical arrangements were adequate. As the hot weather advanced, and numbers went sick from this cause, the strain on the accommodation at the Base was felt, and owing to there being insufficient accommodation, numbers were sent to India who would otherwise not have been sent. On the other hand, until Amarah was taken in June, 1915, Basrah was the only place available for retaining sick, and it is by no means a suitable spot for treating sick for any length of time in the hot weather months.

For the operations at Ahwaz, field ambulances only could be spared and owing to there only being one clearing hospital available for operations on both the Ahwaz line and the Tigris line, the two sections of the clearing hospital, sent up to Ahwaz, were withdrawn in a very short time. If it had been available, a stationary hospital there would have been of great use, as the field ambulances had to retain sick for a very long time.

For the operations on the Euphrates, and at Nasariyah, only one field ambulance was at first available, as the other field ambulance of the 12th Division had to be left at Ahwaz and the field ambulance, which was attachable to either Division, went by road with the 12th Brigade to Amarah. Later, this ambulance was sent by river from Amarah, but two sections were unable to arrive at Nasariyah in time for active operations, as the boat on which they were, went aground in the Hammar Lake and remained there for 10 days.

So that at the time of actual operations at Nasariyah, June and July 1915, the medical units available were No. 3 Field Ambulance, half No. 106 Combined Field Ambulance and one British Section of No. 1 Field Ambulance sent from the 6th Division. These dealt with over 900 casualties, and all the wounded were evacuated from Nasariyah in less than forty-eight hours after the action which ended with the capture of Nasariyah. The medical personnel were very hard worked for a short time, and the presence of a clearing hospital would have made matters easier for the personnel, but the wounded did not suffer in any way. When active operations were over, at Nasariyah, a request was made for a stationary hospital to be sent there, but one could not be spared, and the field ambulance acted in that capacity ever since, some additional equipment being supplied from Basrah, to render it better able to act as a stationary hospital.

During the hot weather of 1915, a number of medical officers and subordinates and other medical personnel were invalided to India, and as none were available to relieve them, those left had to do additional work, but the sick and general medical arrangements did not suffer.

To sum up, though after the arrival of the 12th Division, the number of medical units was insufficient, yet the sick and wounded did not, in my opinion, suffer, during the operations at Ahwaz and on the Euphrates Line, as the casualties were not excessive and the weather was not inclement, though very hot.

G. F. GORRINGE, *Lieut.-General.*

*Statement by the Financial Adviser on the financial aspect of the campaign,
dated 6th May 1916 (received June).*

There are indications that a belief prevails in certain quarters that the success of our military operations in Mesopotamia has been hampered by the character of the financial control exercised by the Government of India through the Finance Department. Sir William Meyer has, therefore, asked me to prepare a memorandum showing, firstly, the method in which this control is constitutionally exercised, and secondly, how the system has actually worked in practice since the outbreak of war.

2. The financial control of the Government of India over military expenditure is exercised by the Finance Member, who is represented in Army Headquarters by the Financial Adviser, Military Finance. The location of a representative of the Finance Department at Army Headquarters has its origin in the reorganisation of the system of military administration in India, which took effect in 1906. In the Government of India's resolution of the 27th April, 1906, it was stated that, with the object of making financial control over military expenditure more constant and efficacious, the Governor-General in Council had resolved, with the sanction of His Majesty's Secretary of State for India, to create a special Branch of the Finance Department (to be styled the Military Finance Branch) which should deal, in their financial aspect, with the application of financial rules and with proposals involving expenditure which are beyond the powers of sanction of the Army Department. In order to facilitate these arrangements, it was decided that the Military Finance Secretary (as he was then called) and his establishment should be located in the same office building as the Army Department, and that he should be in constant personal communication with His Excellency the Commander-in-Chief, who would thus be able, whenever this is thought desirable, to take his advice on the financial aspect of any military question before making a formal reference to the Finance Department, through its Military Finance Branch. The Governor-General in Council expressed the hope that these arrangements would not only make the requisite financial control over military expenditure more constant and complete, but that they would obviate any friction or misunderstanding which might arise, were the Branch of the Finance Department charged with the carrying out of this duty not in close touch with the military authorities.

After three years' trial of the system, no less an authority than Lord Kitchener, speaking in the debate on the budget on the 29th March 1909, expressed himself in the following terms:—

“The annual cost of maintaining these additions to the Army is evidently more than the increased sum provided in the 1909-10 budget. Therefore while you are paying your soldiers, both British and Native, individually considerably higher than in 1902-03, the cost of their service in the Army is less.

“The question naturally arises how has this been accomplished? I think that an answer may be found in the relation that now exists between the military and financial authorities in India.

“Formerly they had very little in common. The military authorities had but slight interest in economy, while the financial authorities concerned themselves as little with considerations of military efficiency. That two great departments of the same Government should thus regard each other as adversaries, rather than as allies working together to obtain results satisfactory to both, was clearly opposed to all business principles. It is not a matter of surprise that the Finance Department failed to secure possible economies, or that the military authorities were hampered in their struggles for efficiency. Two main factors have brought about an alteration—and I hope a permanent alteration—in this respect. On

the one hand, the fixing, for a term of years, of an annual maximum * beyond which special military expenditure could not be incurred, has taught the soldiers that economical administration is a military as well as a financial interest, and has accustomed them to scrutinise every demand for money with the utmost care before it is put forward, lest, by supporting measures which are merely desirable, they should jeopardise those which are essential. On the other hand, the creation of a special branch of the Finance Department to deal with military expenditure, in close connection with the Army Department, has, I think, given the financial authorities an insight—perhaps I may say a sympathetic insight—into the real requirements of the Army, which was formerly lacking.

“ Your Excellency has placed some of the ablest officers of the Finance Department in charge of the Military Finance Branch. My thanks are due to those officers for the ready and valuable assistance they have afforded, not only to myself, but also to the Heads of Divisions at Army Headquarters, by pointing out, at an early stage, the true financial results to be expected from particular proposals, and thus enabling such proposals to be examined with fuller knowledge, and to be dropped or persevered in, in the light of that knowledge. ”

In 1913 certain alterations were made. Under the revised procedure, the Military Finance Secretary ceased to be a Secretary to the Government of India and received instead the title of Financial Adviser, Military Finance. In all essential matters, however, the duties of the appointment remain the same, although its designation has been altered.

3. As the representative of the Finance Member, the Financial Adviser exercises a responsibility in some respects greater than that of most Secretaries to the Government of India. A Secretary in a civil administrative Department ordinarily takes the orders of the Member in charge in respect of most of the cases (other than those of a purely routine character) with which he has to deal. The Finance Member in his turn sees practically every case of any importance (whatever the Department in which it arises) in which the concurrence of the Finance Department is sought to proposals involving civil expenditure. As will be seen presently, where military expenditure is involved the Financial Adviser rarely takes the specific orders of the Finance Member. Speaking generally, the greater freedom conceded to the Financial Adviser is a recognition of the fact that, if Army business is to be promptly and satisfactorily dealt with, inter-departmental discussion must be minimised, and that this can safely be done where, as in this case, the financial critic is in specially close association with the administrative authorities and gives his advice at an early stage.

4. While, in pursuance of this view, it has been the practice of the Financial Adviser in normal times to deal, on the Finance Member's behalf, with the majority of cases which come before him, the conditions brought about by the present war have rendered this procedure even more necessary for the smooth and expeditious disposal of business. Not only has the number of such cases increased enormously, but also they are mostly of an urgent character requiring immediate disposal. Moreover, as I propose to show later, the mere fact that the Empire is engaged in a great struggle has necessarily and properly modified the attitude of the Finance Department towards military expenditure.

5. Since I assumed charge of my present appointment a little more than a year ago, I have accepted responsibility on behalf of the Finance Member in

*This system has now given place to an arrangement under which the total of the military budget for each year is fixed, the Commander-in-Chief having practically a free hand to allocate expenditure within that limit. This figure is provisionally agreed upon, after discussion between the Army and Finance Members; it is then considered in Council, and is finally referred for the approval of the Secretary of State.

even a greater number of cases than my predecessor had done during the first eight months of the war. I find that of the war cases dealt with in the Military Finance Branch my predecessor submitted about 19 per cent of the total number for the concurrence or orders of the Finance Member ; while during the succeeding year I have only submitted to him formally some 2 per cent of the cases with which I have dealt. One change therefore which the war has brought about—a change which began in my predecessor's time with the outbreak of war and which has been materially accentuated since I have been Financial Adviser—has been the increasing readiness of the Finance Member to permit the Financial Adviser to accept responsibility for expenditure connected with the war and thus to expedite the disposal of business. Such a procedure would be impossible if the Financial Adviser were not in the full confidence of the Finance Member and able to be the interpreter of his policy towards military expenditure.

6. Sir William Meyer's policy may be briefly stated as follows. At the beginning of the war he told the Commander-in-Chief and Army Member that he was prepared to meet in full all demands which His Excellency, after due examination, regarded as necessary for the successful prosecution of the war, and that financial considerations would, with reference to such a finding, be regarded as a matter of secondary importance only.

The Finance Member is of course kept fully in touch with the course of Military business, so far as it involves expenditure, by frequent personal communication with the Financial Adviser. He is further kept informed as to the sanctions accorded and the advice given by the Financial Adviser on his behalf by means of weekly statements, one of which summarises the demands connected with the war which have been referred during the week to the Military Finance Branch, and the other gives a brief summary of all other cases which have been disposed of by the Financial Adviser and other officers of his Branch during the past week without reference to the Finance Member. This system enables the Member to keep himself fully acquainted with what is going on, and to interpose if he disapproves of the line which has been taken by the Financial Adviser in any particular case. The latter again seeks the Finance Member's preliminary views on any pending matter at any stage.

7. Stated briefly, then, it is the duty of the Financial Adviser to act as the representative of the Finance Member in respect of all military expenditure ; to scrutinise, with reference to financial principles and in the interests of public economy, all proposals which may be submitted for the sanction of the Government of India ; to advise whether they should be accepted ; and to ensure that the sanction of Government or of the Secretary of State, as the case may be, is obtained when such sanction is necessary under rule.

8. The Financial Adviser is also the responsible adviser on all financial questions of His Excellency the Commander-in-Chief and Army Member. He is enjoined to render all assistance in his power to the various branches of Army Headquarters in the preparation of their cases. As already stated in order to facilitate the business of Army administration and to prevent the delay and possible misunderstandings which might arise from the exercise of financial criticism upon departmental lines by an outside body, the Financial Adviser and his office are located in the Army Headquarters building. This enables him to work in the closest personal contact with the Commander-in-Chief and Army Member, and to be kept informed of all that is going on. He attends the conferences held two or three times a week since the war broke out by the Commander-in-Chief, at which all the chief staff officers at Army Headquarters are present, and important questions of policy and administration are discussed. The Financial Adviser is thus treated, not as a hostile critic, but as a colleague and a trusted adviser on financial matters. His relations with the heads of the various branches are of the closest. They consult him freely at any stage of their cases, and readily place at his disposal any information which may be required from the financial point of view, while his advice and assistance are always at their disposal.

9. The decision to employ the military forces of the Indian empire in various theatres of the war has added largely to the responsibilities of the

Financial Adviser. Not only has this decision involved a very large amount of military expenditure, but it has also given rise to numerous and complex problems regarding the incidence of charges. Briefly stated, the position is that, under the Resolutions passed in September and November 1914 by both Houses of Parliament, Indian revenues bear the normal cost of those troops which have been despatched overseas, while the Home Government bears all extraordinary charges. These arrangements result in heavy expenditure being incurred in this country on behalf of the War Office; and the Financial Adviser has had to assume special responsibility in relation to this expenditure and for seeing that it is properly brought to account and audited. In this respect he acts as the representative, under the Finance Member, of the Home Treasury and War Office in regard to recoverable war expenditure, and he is responsible for seeing that financial rules are observed and that the interests of economy, consistently with efficiency, are not lost sight of. Naturally both the Army and Finance Members feel it their duty, as a matter of good faith, to scrutinise proposals involving expenditure which will be debitable to the Home Government with the same care and regard for economy as if the expenditure would fall upon Indian revenues. It is one of the special functions of the Financial Adviser to assist them with his advice in respect of all such recoverable war expenditure. The Home Government have given the Government of India wide discretion to incur war expenditure on their behalf. It is essential, however, to avoid a position in which the War Office can subsequently challenge expenditure incurred by the Government of India on their account, on the ground that it had been wasteful and unnecessary. The War Office have hitherto accepted the Government of India's bills with very little criticism because, as we learn from the India Office, of the careful check exercised in the Military Finance Branch. At the same time it ought to be remembered by those who suggest that the efficiency of our overseas operations has been prejudiced by the Finance Department's parsimony, that the cost of the Mesopotamia Expedition (outside normal charges in connection with troops furnished from India) is borne by the Home Government, and that the Finance Department are not likely to be so completely given over to pedantry as to hamper an expedition, the results of which might vitally affect India and the East, for the sake of saving a little money to the Home Government. But of course in the case of expenditure which has to be met by the Government of India in the first instance, though ultimately recoverable from the War Office, we require to know the approximate amount of such outlay, since such expenditure which in the aggregate has reached a very large amount, materially affects our ways and means estimates.

10. The preceding paragraphs indicate briefly the method by which the Government of India exercise financial control over war expenditure. It now becomes necessary to examine how the system has worked throughout the period of the war.

The Financial Adviser, as his title implies, possesses in respect of proposals involving expenditure merely advisory functions. *He has no power to veto any proposal.* When a case comes before him, and after he has obtained any further information—if such be necessary—which he deems essential, he has three alternatives open to him :—

- (1) To agree, on behalf of the Finance Member.
- (2) To advise acceptance of the proposal, but to ask that, in view of the magnitude of the sum at stake, or because some important question of principle is involved, it may be submitted to the Finance Member for his concurrence, after His Excellency the Army Member has seen the case.
- (3) To advise that the proposal be not sanctioned.

Of these alternatives, the first requires little comment. When the Financial Adviser advises acceptance of a proposal, it means, in effect, that the final decision rests with the Army Member, or with the Army Secretary acting on his behalf. The greater number of cases are in practice disposed of in the

Army Department without being actually submitted for the Army Member's orders, though the proposals have, in many cases, been put forward by the Branch concerned with his knowledge and approval in his capacity of Commander-in-Chief.

11. With regard to the second alternative, the necessity for this procedure is obvious. The question whether it is abused so as to become an instrument of obstruction depends upon two points; firstly, whether the Financial Adviser, in point of fact, resorts to it with undue freedom, in the desire to avoid personal responsibility; secondly, whether in practice the Finance Member does or does not endorse proposals to which the Army Member has committed himself on the strength of the Financial Adviser's advice. With regard to the first point, I have shown above that only in a very low percentage of cases does the Financial Adviser formally refer proposals for the Finance Member's concurrence. In the year during which I have held the appointment of Financial Adviser, I find that I have only referred 27 cases to the Finance Member out of 1,340 cases dealing with war expenditure which have been referred for my concurrence.* As regards the second point, the actual facts are that, though the Finance Member may naturally have had suggestions of his own to offer or minor modifications to ask for, in no case during the past year, when the Army Member and the Financial Adviser have first been in agreement, has any acute or even substantial difference of opinion afterwards emerged as between the Commander-in-Chief and Army Member and the Finance Member. The personal relations between the Finance Member and the Financial Adviser which I have already alluded to and the close association between the Commander-in-Chief and the Financial Adviser which I have referred to in paragraph 8 have in fact, I submit, resulted in fully achieving the object with which the appointment of Financial Adviser was created.

12 The third alternative needs some explanation. When the Financial Adviser is unable, on financial grounds, to advise acceptance of a proposal which has been submitted for his concurrence, the Army Member can (a) either accept his advice and reject the proposal, or (b) overrule the Financial Adviser and support the proposal. In the first case, which every now and then occurs in practice, the final responsibility has evidently rested entirely with the Army Member. In the second case, if the Finance Member, to whom the case must then be referred, concurs in the Army Member's decision, the military view has again prevailed. If, however, the Finance Member supports the Financial Adviser in resisting the proposal and the Army Member still presses it, the case becomes an ordinary one of difference of opinion between two Members of the Viceroy's Executive Council. The matter is submitted in due course to His Excellency the Viceroy, and unless one of the two members defers to the personal view, if any, which His Excellency may then express, the matter goes to Council and is decided by a majority of the members present. In fact the Finance Member has no absolute power to veto proposals. He can, it is true, refuse his concurrence; but the final authority is the collective Government, on reference to which he may be overruled by a majority of his colleagues.

13. To the best of my recollection, there have been only two cases affecting military expenditure which have been submitted to the Viceroy and discussed in Council during the past year which involved divergence of opinion between the Army and Finance Members. These cases related to important reforms affecting the pay and pension of the Indian army as a whole; but they were to be *post bellum* measures, and although there was not absolute unanimity with regard to questions of detail between the Army Member and the Finance Member, there was no wide divergence of views regarding the main policy.

14. There have been a few cases of yet another kind in which I have thought it my duty to state fully the financial objections to a proposal submitted for Government's sanction, but have then explicitly left it to His Excellency the Army Member to decide whether the financial objection should prevail over the administrative considerations. This course enables the Army Member to view the proposal from the widest angle and to decide the point at issue with reference to all the factors involved.

* There were a number of other cases, of course, in which I had previously ascertained the Finance Member's views, *vide* the last sentence of paragraph 6.

15. The system outlined in paragraphs 10 to 14 above is designed to secure (a) that financial advice is offered at any desired stage, and in any case before the Commander-in-Chief and Army Member is committed to a final expression of his views, and (b) that, if such advice is disregarded, the issue can, if either the Finance Member or the Army Member thinks fit, be pressed to a decision by the highest authority. The first feature of this system is one which every Army Member from Lord Kitchener onwards has regarded as essential to safe and smooth working and to his own personal prestige. As regards the second, I need only say that during the past 12 months during which I have held the appointment, the Financial Adviser has never once advised that any proposed expenditure which the Commander-in-Chief and Army Member has finally regarded as necessary for the efficient prosecution of the war should be negatived.* That is a responsibility which, on a clear issue, the Finance Department in time of war is not prepared to accept.

16. It may perhaps be objected that though the Military Finance Branch has not actually advised against the acceptance of such proposals, still the necessity for obtaining its concurrence may have led to delays and thus hampered military operations. I do not think that we have, in point of fact, been responsible for causing avoidable delay in the disposal of war cases. There are occasions on which we have found it necessary to ask for the production of earlier papers bearing on the subject, or to remit the case to the Army Department for further explanation of some point which has not been made clear. We avoid making such references whenever possible, and if a case comes to us in such a form as to permit of its ready disposal we make it our business to deal with it promptly. Practically all war cases are marked "urgent," and though we often receive a large number of such cases daily it is very rarely that any delay occurs in the Military Finance Branch in disposing of them. Such cases are as a rule returned with our views within 24 hours.

It is often the duty of the Military Finance Branch to require that a reference should be made to the Secretary of State, either in view of the amount or character of expenditure which it is proposed to defray from Indian revenues or with regard to expenditure which the Home Government will have to meet, but which it might possibly object to (as in the instance mentioned in paragraph 20). Rather than delay cases, however, we usually suggest that such references should be made by cable.

17. Some statistics of the extent to which the Military Finance Branch has had to deal with war expenditure questions since the beginning of the war may be of interest. A list which has been maintained in my office shows that between the 4th August 1914 and the 15th April 1916, 2,073 such cases have been referred for the advice or concurrence of this Branch. In not one single case has sanction been refused on financial grounds to a war measure which His Excellency the Commander-in-Chief desired to adopt, after considering the military and financial advice tendered to him. The expenditure involved by these proposals amounts to a very large sum. Those items, whose cost could be estimated at the time that the proposal was referred for concurrence, represented expenditure amounting in round figures to £9 millions initial and £5 millions recurring per annum. The war expenditure incurred on behalf of the Home Government amounted to about £9 millions in 1914-15 and £16 millions in 1915-16.

18. It must not, however, be thought that the functions of the Military Finance Branch in the way of financial criticism, advice and assistance have remained in abeyance in connection with war cases. The functions of criticism and help have remained the same; it is merely on the question of sanction that the attitude has altered. In peace time it has been the practice of the Finance Department to contest any proposals which appear to it to be unnecessary, uneconomical or financially unsound. It has also to be remembered that there must always be cases, civil as well as military, in

* He has, however, every now and then had to criticize on financial grounds proposals put forward by Army Headquarter Branches, and his objections have frequently been upheld by the Army Member.

which the expenditure proposed may be desirable *per se*, but cannot conveniently be met from the available resources of Government. In normal times, therefore, there is always the threat of controversy should the Finance Department views not prevail. In war time the attitude of the Finance Department is entirely changed. We tender our advice, but we avoid controversy; and as can be shown by frequent instances, where a clear administrative finding has been reached on a matter affecting the prosecution of the war, we press financial criticism no further. The necessity even in war time of what may be called financial commonsense is of course obvious, but any helpful advice we have been able to give from this standpoint has always received ample consideration from the highest military authorities, and even though our views have not always been fully met, we have never felt that they were blindly ignored.

19. I do not wish to burden this memorandum with an enumeration of the various types of cases in which our advice is sought. Many points necessarily arise in connection with war expenditure, not with regard to the question whether the demands should or should not be complied with—this is left, as explained above, to the highest Military authorities to decide—but with regard to such questions as the terms to be offered to the personnel of new formations engaged for the war, of temporary followers, and the like; the pay and allowances admissible under our complicated regulations to individuals; the most economical method of ensuring the supply, *e.g.*, of river craft (by hire or purchase), of boots, of woollen garments, the rates of hire of transports, etc., etc. On such questions, the advice of this Branch is, I submit, at times of much value, especially in view of the fact that the rates of pay offered to personnel employed in Mesopotamia (for instance) must react upon the rates prevailing in India and thus affect our permanent Military expenditure.

20. The Military Finance Branch, again, is particularly concerned to see that the terms of service of personnel engaged in connection with new formations for which our Regulations do not provide, are in harmony with those adopted by the War Office, when they have to meet the cost. A case occurred last year in which one of the administrative branches of Army Headquarters, without previous reference to the Government of India, inadvertently offered to Territorial soldiers who were required for service as aviation mechanics with the force in Mesopotamia certain high rates of pay which were properly admissible only to a few mechanics lent and paid for by the Australian Government and to a few civilian mechanics specially engaged for this work.

When this case eventually came to the notice of my branch, we protested against what we considered to be an irregularity, but we agreed *ex-post facto*, subject to the Secretary of State's approval, to the orders issued, in order not to embarrass the organisation of the 'flight.'

The War Office, however, did not accept the view which underlay these orders, *viz.*, that men drawing different rates of pay for the same kind of work could not be expected to serve together in the field (or out of it) under the same command, without considerable trouble arising therefrom. On the contrary, they expressed the opinion that the rates mentioned were unduly high; and although they agreed to their being continued to the Australian personnel as personal allowances, they could not accept the proposal to grant these rates to other personnel employed with the Royal Flying Corps in Force "D." They added that, if the men of the Territorial force taken for this 'flight' were unwilling to serve at the rates laid down by the Army Council, they should be returned to their units forthwith. A further attempt to induce the War Office to agree to the rates offered led to a curt refusal. "The War Office insist that personnel of Royal Flying Corps obtained from Territorial Regiments should, whether serving in India or Mesopotamia, only receive rate of pay applicable to British troops in India."

I cite this case merely as an instance of the danger of deciding cases affecting the pay of personnel without reference to the Military Finance Branch. There can be little doubt that, if this Branch had been consulted in the first instance, it would have pointed out that the War Office were unlikely to agree to these specially high rates being given to Territorial soldiers, seeing that they

had already decided upon a rate of pay (a much lower one) admissible to soldiers employed with the Royal Flying Corps.

21. If there were any solid foundation for the belief that the Military Finance Branch has been obstructive in its attitude towards war expenditure, one would expect to find this charge put forward by those best in a position to judge to what extent financial control and criticism have hampered them in their work, namely, His Excellency the Commander-in-Chief and Army Member, and the heads of the administrative Branches of Army Headquarters. So far as I am aware, no such complaint has been made by them. I venture to go further and to say that, in view of the magnitude of the issues of this war, it would have been the duty of these high officers, if they found themselves hampered and obstructed by financial control, to bring the matter prominently to the notice of the Government of India, with a view to obtaining relief. Moreover, His Excellency the Viceroy is himself the special head and protector of the army, and His Excellency's position as a legitimate and powerful resource in cases where vital military interests are threatened is well understood by the Commander-in-Chief. But, as stated in para. 13, there has been no case during the war in which the Commander-in-Chief has thought it necessary to appeal to the Viceroy against the action of the Finance Department in respect of war measures.

I do not think, however, that I need labour this point, since I believe that I can disprove the allegation once and for all. Not long ago, the Home Government decided that the War Office should assume control of the operations in Mesopotamia, the principal theatre of war with which the Government of India are now concerned. It was possible to read the orders of the Secretary of State as giving the military authorities a perfectly free hand; in effect as eliminating the control of the Government of India, including financial control as exercised through the Finance Department. I submitted for the orders of His Excellency the Army Member the question of the change which the altered procedure would effect in the status and duties of the Financial Adviser. A unique opportunity thus presented itself of getting rid of an irksome and dilatory system of control, if it was irksome and dilatory. But His Excellency the Army Member, so far from availing himself of this opportunity, passed orders in the following terms :—

“I have, however, no wish to alter any part of our present procedure and I see no need of any change. I propose to work through the Army Secretary and the Military Financial Adviser exactly as I did before. With good will on all sides, I do not think that any difficulties need arise or that there should be any necessity for more precise definition of rights and duties than exists at present.”

22. I think that the Army Member would readily allow me to claim this as a special mark of his personal confidence in his financial advisers. In fact we come here to the root of the matter. The legend of the Army administration being thwarted and defeated by financial pressure is perhaps a natural heritage from past controversies and personal antagonisms. In peace time, indeed, the many competing claims which tend to restrict military expenditure must always encourage some such feeling; but the whole idea is utterly inapposite to the actual conditions of our war administration. It is hardly too much to say that in war time the Financial Adviser has become, as regards the bulk of his daily work and with the full assent of the Finance Member, practically a staff officer of the Commander-in-Chief. I am not, of course, speaking of those questions of higher direction and policy which are essentially matter for the Viceroy and his Cabinet. I refer to the conduct of army business from day to day, with which I am personally concerned. In regard to this, the Commander-in-Chief and Army Member has allowed me to feel that I possess his confidence as fully as any military member of his staff. Just as the Director General of Ordnance is concerned to see that there shall be no fiasco in regard to munitions, so it has been my business to see that there is no fiasco prejudicing the credit of the Administration in regard to the supply of funds and their intelligent use. My

Branch has not intruded administrative advice, but we have readily given any help we could, if it was desired.* Above all and finally, though the war has added nearly 50 per cent. to our work and we have had many difficulties and may at times no doubt have made mistakes, we have never forgotten that the only thing that really matters is to win this war; and we have never consciously blocked, obstructed, hampered or delayed any demand relating to the forces operating overseas.

The plain fact is that those who impute particular shortcomings in this theatre of operations to departmentalism in the Government of India do so in entire ignorance of the spirit in which war work is carried on here. The Military Finance Branch does not stand alone in this matter. Almost every Department has had its work increased and has had, in every sort of urgent way, to co-operate with others for our purposes. The result has not been to emphasise departmental points of view, but rather to harmonise them.

23. It is not, however, difficult to understand how vague feelings of dissatisfaction should express themselves in these badly aimed attacks on the Government of India's exercise of financial control. Theoretically, the Commander in the field has very wide, financial powers; and if there were full scope for their exercise, the question of excessive financial control at the headquarters of Government could hardly have been raised. It is obvious, however, that in a campaign such as that which is being waged in Mesopotamia the Army Commander's powers of sanction are limited by his capacity to obtain his requirements locally. In effect these are negligible: almost all the requirements of Force "D" have to be met either from India or from Home. This leads inevitably to delays, and the delays in their turn lead to a tendency to impute to the authorities in India and at Home indifference to the local army's needs.

It is only human nature to grumble; and certainly the conditions of life in Mesopotamia, from all accounts, afford good ground for complaint, especially when they are contrasted with the conditions prevailing in France, from which area many of the troops now serving there have been transferred. It would of course be impossible, for obvious reasons, to make the conditions in Mesopotamia as satisfactory in every respect as those in the western theatre of war. We are fighting in a country with no railways, in a primitive state of civilisation with long communications by river and with inadequate means of transport. The country itself provides no luxuries and hardly the barest necessities. The climate is extremely trying and unhealthy. The force is based upon India, which is distant some 4 or 5 days by sea and is itself unable to provide, at any rate immediately, some of the requisites asked for. I doubt whether the critics fully realise the difference in the conditions prevailing in Mesopotamia and Europe, or make full allowance for this factor. Still there is no doubt much unavoidable ground for discontent in the conditions of life in the former country, and it is perhaps not unnatural that the grumblers should direct their chief attacks against the alleged obstructiveness and parsimony of the Finance Department, for want of a better object. I hope, however, that I have succeeded in showing that, so far from exercising that sinister influence on the conduct of the campaign which seems to have been imputed in certain quarters, the Finance Department has done all that it can within its own sphere to facilitate war operations.

* For example, I had had personal knowledge in Burma of Sir George Buchanan and his work, and it was I believe, at my original suggestion that he was sent to Mesopotamia to undertake the administration of the port of Basrah and to improve river communications.

G. FELL,

Financial Adviser, Military Finance.

6th May 1916.

Telegram from Sir William Vincent, to the Secretary to the Government of India, Army Department, No. 52, dated 22nd April 1916.

Your telegram H.-2599, dated 10th April. Following information should be obtained from General Sir John Nixon, Generals Aylmer and Fry now in England.

1. Whether in his opinion medical staff and equipment including hospitals and hospital steamers—both ocean and river, in Mesopotamia during his period of service there was adequate. Whether Senior Medical Officer represented deficiencies and need for water transport reserved specially for medical purposes and whether India refused delayed or failed fully to comply with demands made for additional personnel and equipment.

2. Casualties anticipated at important actions during period of service, with particular reference to battles of Ctesiphon, Shaikh Saad, near Orah on 13th January 1916, above Wadi 21st January 1916 and Es Sinn on the 8th March 1916. Whether medical organisation was adequate, reasons for any inadequacy and for engaging enemy if medical organisation was insufficient. Detailed information as to defects observed or complaints made regarding collection, treatment and evacuation of sick and wounded in operations referred to in particular defects—

- (a) in amount and suitable character of transport for sick and wounded by land or water and of hospital accommodation,
- (b) medical personnel and equipment for dressing wounded and for their comfort,
- (c) arrangements for protecting sick and wounded from inclement weather and providing them with sufficient covering,
- (d) arrangements for supply, preparation and distribution of food and drink,
- (e) Sanitary arrangements.

3. Causes of defects found, and particularly whether due wholly or partially to inadequate personnel and equipment in Mesopotamia, of organisation or failure to utilise available resources, or want of energy, industry, or source in officers on the spot or to any other cause.

4. Other observations in which having regard to terms of reference he may wish to make for assisting Commission.

Letter from MAJOR-GENERAL C. I. FRY, C.B., Indian Army, to the Under Secretary of State for India, Military Department, India Office, dated 3rd May 1916.

In reply to your letter No. 18437 of the 29th ultimo, I have the honour to report as follows :—

1. My experience with the Indian Expeditionary Force in Mesopotamia dates from the arrival of the force under General Sir Arthur Barrett on the 14th November 1914 to the end of October 1915. I consider that during the early stages of the Campaign the medical requirements were adequately met, but later on owing to casualties among the medical staff and unexpectedly heavy casualties among the troops from wounds and sickness, and the difficulties of transport there was considerable shortage both in personnel and equipment. The work done, however, by the medical staff was excellent and their devotion and bravery beyond all praise.
2. There was always a difficulty in providing suitable hospitals on shore, due to the flooded state of the ground which prevented expansion of hospitals established on the few sites available. As I was almost continuously at the front I cannot say how far this affected the Base Hospitals at Basrah, but on the river I know it was impossible to supply river steamers expressly fitted for hospital requirements as those we had in the country were urgently required for the transport of troops and munitions, and were all too few for the purpose. There was great difficulty in supplementing the supply of river steamers, as they had to be brought across the sea from India and other places, and there were many losses on the voyages. But I am sure the matter was brought to notice and every effort made to meet the situation.

3. The casualties anticipated at the actions at Sahil 17th November 1914, and Kurnah 8th and 9th December 1914 were adequately met and provided for.

At the action at Shaiba, 12th to 14th April 1915, the evacuation of the sick and wounded presented extraordinary difficulties owing to the 8 miles inundation between that place and Basrah, but was carried out in the most praiseworthy manner and was a fine piece of staff work. There was however a considerable shortage among the medical personnel due to casualties among them.

At the battle of Es Sinn 27th and 28th September 1915, as far as my Brigade was concerned (we were operating on the left bank of the Tigris), the medical work was most satisfactory and the evacuation of the wounded carried out very efficiently. I cannot say how it fared with the other troops who were engaged, who moved against the left flank of the Turkish position at a considerable distance from the river, and, as I left the battlefield immediately after the action in pursuit of the Turks, I am not in a position to say how the medical requirements were met.

I proceeded to Aziziyeh where we halted. It is a place affording no suitable buildings for hospital purposes; and owing to the low state of the river, at that time, the transport of sick and wounded by river steamer was necessarily slow and difficult.

At Aziziyeh I fell ill and was invalided to India so can give no information from personal experience regarding the battle of Ctesiphon and subsequent events.

4. In conclusion I consider that the work of the medical staff was greatly hampered by local conditions, which were unavoidable. The medical staff did all in their power to overcome those difficulties but latterly were under strength and overworked. Every expedient was utilised to provide for the comfort of the sick and wounded, protecting them from the inclemency of the weather providing suitable food and drink, and arranging for the sanitary welfare of the troops. But I think much more suitable material might have been supplied had the local conditions been thoroughly understood in India before the commencement of the Campaign.

Letter from GENERAL SIR JOHN NIXON, to the Under Secretary of State for India, Military Department, India Office, dated 19th May 1916.

I have the honour to acknowledge receipt of your M.-18437 of the 29th April.

I have no papers to which I can refer and it is very difficult for me to make such positive statements as I should like to make, without running the risk of misstatement or exaggeration. Records at Army Headquarters in Mesopotamia would afford information on the points raised in the statement you forward me.

I reached Basrah on the 9th April, and the Turks got in touch with Shaiba on the 11th and fighting continued till the 14th. The casualties numbered about 1,200 and there were about 200 wounded Turkish prisoners. Some 9 miles of water separated Shaiba from Basrah. It is my recollection that a shortage of medical officers and subordinates on the battle fields was reported later, and that the general hospitals at Basrah became overcrowded and that the hospital ship, the "Madras," did not arrive till the 1st May; I cannot say what might have been done in India to quicken her arrival or to foresee the necessity for it. The Turkish wounded were accommodated in the American Mission Hospital, and medical assistance, so far as it could be spared, had to be lent to that institution, the staff of which consisted of a Doctor and his wife and two Eurasian nurses.

I reported the good work of the medical services in coping with a strain for which they apparently were not organised. It is capable of verification what was the number of beds provided in the general hospitals, British and Indian, and the number of sick and wounded that had to be accommodated after the battles of

Shaiba and Barjisieh, and the number of field ambulances and medical personnel at Shaiba during this period.

At this time a brigade was quartered at Kurnah and 5 battalions and a field battery at Ahwaz. So far as I know no river steamers, either for troops or hospitals, had originally been provided at all for the force, and reliance had to be placed on four or five Lynch steamers, which between them could carry about three battalions or their equivalent and these had to be used, according as necessity arose, for troops or for sick and wounded. At this time the country was flooded on both banks to Nasiriyah up the Euphrates and Rila Salih up the Tigris, and between Basrah and Muhammerah on the Karun.

In March I think, when the original Division was added to, India arranged to send some paddlers from Burma, and these arrived at intervals between the 5th and 20th May, but none were specially fitted as hospital ships and owing to their depth, these were soon knocked off the Ahwaz run on the representations of the Marine Transport Officer. It cannot be said then that the "hospital steamers" were adequate at this time nor were they during the time I served in Mesopotamia. No special "hospital steamers" existed.

The need for steamers was represented, and reference to records will show the dates on which representations were made; the date India pressed the demand home; the date the Admiralty received the requisition to build steamers and placed contracts for them; the dates they arrived in Basrah and the dates they were actually ready for use. River steamers were the crux of the situation not only as regards the movement of the sick and wounded but of the whole operations.

The ocean-going hospital ships, of which I saw three, were, so far as I know, adequate and well found. Records will show the number of medical officers and personnel carried; I cannot say whether they were sufficient.

River steamers not being available, *mahailas* were rigged as hospital ships when the attack on Rutah was made from Kurnah in the end of May, and as there were so few casualties they answered the purpose.

The Deputy Director Medical Services was constantly representing the shortage of personnel, I believe, and of river hospital steamers; without, during my period of command, obtaining the latter, whatever he may have done as regards the former, in regard to which however my impression is that both the medical officers and medical subordinates were below strength and over worked the whole summer. I presume they were not available and therefore could not be provided, I do not give any opinion on this point. The Force, to carry out its orders, had to do the best it could with the materials given it.

At the battle of Kut-al-Amarah the total casualties were about 1,500, and as the enemy was much the same, the country and their entrenchments much the same at Ctesiphon, the anticipation was, so far as I can remember, that, as our force was stronger than at Kut-al-Amarah, two steamers would be required for the wounded, and these I believe were placed at the disposal of the Deputy Director, Medical Services, at his request and prepared as hospital ships. The result of the battle imposed on him the necessity of moving a much larger number down stream at once, and the losses in medical officers and equipment made it impossible for him adequately to provide all that was necessary in these respects in the stress of the circumstances. I do not consider the medical personnel is maintained at a sufficient strength for war in Field Ambulances in India, however well it may work in peace, this point does not appear to have been adequately foreseen in India, or, if foreseen, enquiry apparently was not given for the purpose. The same applies to the Army Bearer Corps, the numbers of which are not in my opinion sufficient in peace and when hastily and with difficulty recruited in war are not of quality sufficiently high to do the best that the soldier has a right to expect.

After Ctesiphon the wounded were sent down by ship and were not abandoned, and this speaks volumes for the work of the medical service. Owing to the shortage of personnel, when working all night and day in the most praiseworthy manner, instances must have occurred where men did not receive the attention they required. Both ships and personnel were inadequate and I deprecate the medical service being blamed for their physical inability to cope with conditions suddenly imposed on them by the technical situation.

As regards the deficiency of medical supplies at the battle of Shaikh Saad on the 13th January I am unable to speak with certainty as, owing to ill health, I handed over command of the Force on the 18th January. A deficiency was reported to me and I had up the Deputy Director, Medical Services, and personally asked him about it. He explained to me that the field ambulances of the Lahore and Meerut Divisions had arrived in the river later than their troops, that the transport of troops had to be given precedence in some cases in river shipping over services, and that he had arranged for the supply to General Aylmer's force of medical equipment and supplies at Amarah, where General Aylmer's Head Quarters were, before he moved up, and, that if there were any deficiency the fault lay with the Assistant Director, Medical Services, of Aylmer's Corps or with the Staff of that Corps in not taking their supplies on with them from Amarah when they advanced. I told the Deputy Assistant Quartermaster-general to go into the matter and investigate it, and, if the time and the circumstances had rendered it possible, I would have ordered a formal Court of Enquiry. The result of General Cowper's investigation was no doubt laid before my successor. It is not in my recollection whether the Brigades of reinforcements sent from India in December 1915 brought field ambulances and full equipment with them, or, if so, whether they were up to strength in all ways : reference to Basrah would clear this point up.

I can certainly say that I never had any fault whatever to find with the energy, industry or resources of officers of the medical services and I attribute the sufferings of the wounded to the want of provision of river steamers.

It is not clear to me how the force would have moved at all up the rivers had the Turks removed all Lynch's river steamers instead of only a few of them and, on assuming command, I found no information showing that this matter of river transport had been provided for before the Expedition started in November 1914. It probably had been foreseen, but there is no sign that it had been observed.

JOHN NIXON, *General.*

Statement of Lieutenant-General Sir Fenton Aylmer examined at Simla on the 15th June 1916.

The battle of Shaikh Saad was initiated by the General Officer Commanding 7th Division. He had been told only to feel for the enemy. After he had started from Ali-al-Gharbi I heard that the enemy was likely to be in stronger force on the right bank so I again warned him not to engage the enemy till my arrival. The casualties were about 4,500.

The action was not a planned battle, and for that reason detailed medical preparations and estimates of casualties were not made by the Corps Staff, so far as I am aware. If anything of the kind was done it was done by the 7th Division Staff, which was the only unit engaged on the first day's fighting. On the 6th, I reiterated my instructions not to engage seriously to General Younghusband as soon as I received the report of an aerial reconnaissance which showed that the enemy was in force near Shaikh Saad. On my arrival at Musandaq at about 7 or 8 on the morning of the 7th, General Younghusband told me that his casualties were about 600.

My impression is that they began to put up tents on the evening of the 7th both on the right and left banks. Medical tents were short so they were supplemented by regimental tents.

I was overburdened with work owing to my having a scratch staff much of which consisted of untrained officers. General Austin was sent to me as Brigadier General of the General Staff, and he was not suited for the post. General Douglas did his best but he had little experience of administrative work. He and his brigade staff were taken because no one else was available. I had to take Colonel Irvine as Deputy Director, Medical Services. As far as I am aware he had had practically no administrative experience. I had no regular C. R. E.

or C. R. A. It was hoped that a Corps staff could be organised from officers of the 3rd and 7th Divisions, then *en route* from Europe.

The hospital camp at Shaikh Saad was beginning to be formed on the 9th. There was difficulty in moving the wounded there as the steamers were impeded by bad weather. I am not able to give evidence as to the state of the Shaikh Saad camp as I did not visit it. I only settled the site which was chosen for military reasons.

General Kemball complained to me about the feeding of the wounded shortly after the action at Shaikh Saad. I spoke to Deputy Director, Medical Services, on the subject and he promised to do his best. The shortage of Supply and Transport officers delayed the issue of supplies from the parent ships, *i.e.*, the ships that accompanied the troops (they combined the functions of 2nd line transport supply column ammunition and Engineer Field Parks). I wrote strongly on the shortage of these parent ships. I was given less in proportion than any other force previously engaged in Mesopotamia.

I pointed out to Sir John Nixon on the 23rd December that the success of the force depended upon the provision of a sufficient number of steamers. In another letter about the same time I pointed out that two properly fitted up hospital steamers be provided, and begged, that they might be furnished. I also asked that portable barracks for hospitals should be sent to Amarah from Kurnah so that they could be erected before the hot weather. This letter showed how concerned I was regarding the care of the wounded.

I fully realised the importance of feeding the wounded and spoke to General Douglas, Colonel Trevor and Colonel Dallas on the subject. I think they did their best. Issues were delayed by the paucity of parent ships. I think that with more experienced officers better results might have been attained. I did not mention any of these officers in my report but I think they worked hard and did their best. My medical resources were very inadequate; I had to improvise many units. I only had one-third of the authorised complements.

General Younghusband's force at the Wadi which had to carry out the turning movements was given as many ambulances as could be spared. He got the proportion of these available. The steamers could not get up to the Wadi until the pontoon was taken as they came under fire. Bad weather on the 13th and 14th January increased the sufferings of the wounded. On the 21st and 22nd their sufferings would have been very great with the best and most ample medical organization in the world owing to the same cause. There was great disorganization on the night of the 21st. Owing to the loss of their officers many units broke up and the steamers were crowded with unwounded men seeking food and warmth, who added to the difficulties of the medical officers. I remember the case of Major Murphy. I went into the matter and came to the conclusion that the charge of want of humanity could not be proved against him. There was no court of enquiry, but I got a statement on the subject and questioned the Deputy Director, Medical Services, and other officers about it before giving my decision.

The shortage of Medical Units and personnel hampered me at every turn. I was constantly urged to press forward by Sir John Nixon in spite of the weather and of the loss of 30 per cent of my infantry. The losses in the British infantry were specially heavy.

I realised that we had no ambulance tongas or other medical transport. For this reason I allotted army transport carts to ambulances and fitted them up with mattresses and provided mussuks for water supply.

I was Adjutant-General before going to Mesopotamia, and I have no hesitation in saying that the sanction of measures emanating from the Adjutant-General's Branch required for the efficiency of the army has been delayed in the Army and Financial Departments ever since the war began. Even if they did not refuse proposals they demanded details with all the minutiae that they required in peace time regardless of the increase of work in the Branch. They seemed incapable of realising that we are at war. I instance the case of the increase of followers pay and establishment.

I think that the increased efficiency of the Turkish Troops in January 1916 and the effect of this on the number of casualties as compared with previous experience in Mesopotamia has not been sufficiently appreciated in India and in England or by the Army Headquarters. The morale of the Turkish troops was also an important factor. The general tendency was towards a decrease in the efficiency of our troops and an increase in the efficiency of the enemy.

It was impossible for me to see to the medical arrangements with the various duties I had to perform.

General Gorringe was sent up at my request as I do not think the maximum was being obtained out of the available material.

W. H. VINCENT.

From Lieutenant-General Sir A. Barrett, to the Military Secretary, India Office, dated 8th May 1916.

With reference to telegram No. H.-3216, dated 26th April, 1916, from the Viceroy (Army Department), I have the honour to report as follows :—

I am of opinion that during my period of service in the Persian Gulf the medical staff and equipment was adequate.

The strength of the force was at first two brigades only, and was gradually increased to five brigades, with which we held Ahwaz on the Karun River, Kurnah and Shaiba, with Basrah as base and headquarters.

I was given to understand that our advance would be confined to such points as would be required to hold the Basrah Vilayat, the limits of which were roughly the towns and districts of Amarah on the Tigris, and Nasiriyah on the Euphrates.

For this purpose I considered that the river steamers and barges used for conveying troops and supplies to these points would be sufficient to bring back sick and wounded to the base, and that empty transport steamers, supplemented by the hospital ship "Madras" which visited us twice during my tenure of command, would afford the necessary accommodation for taking the sick and wounded back to India.

Shortly after our occupation of Basrah I represented the necessity for providing more river steamers for transport purposes, and I understood that the Government of India was taking steps to procure them.

My senior medical officer, Colonel P. Hehir, I M. S., did not ask for anything more, and was fully satisfied with his arrangements for the comfort and welfare of the wounded after the various engagements, and with the organisation of the medical services.

There were ample supplies of food, tents, blankets and medical comforts on board the transports.

It was not possible to get these landed in sufficient numbers during the first few days operations, but afterwards no difficulty was experienced in providing all that was wanted.

The greatest number of casualties in any one engagement was approximately five hundred which was about what might have been expected considering the number of troops employed.

Accommodation for Indian sick and wounded at Basrah was not at first satisfactory, but this was soon remedied, thanks to the energy and resource of medical officers and field engineers.

I often visited the various hospitals and was satisfied that the arrangements were in all respects satisfactory.

A large supply of comforts was provided by the Bombay branch of the Red Cross Society, by whom I was frequently asked to state if anything further was required.

No complaints reached me at any time.

Statement of Major Melville, A. D. M. S., Indian Service, Army Headquarters, taken at Simla, on the 12th June 1916.

I produce a copy of Colonel Hehir's letter No. 2250-M., dated the 10th

• *Vide Appendix IV c (1).*

April 1916. Our reply was that the officers could not be sent as they were not available. We told Force "D" however that if we could get civil sub-assistant surgeons to volunteer for military service we would consider his demands further. When we suggested reducing the number of officers in the field ambulances we were aware that we were proposing a reduction of the normal establishment. Of the reinforcements asked for in April and May no R. A. M. C., or I. M. S., officers or assistant surgeons or sub-assistant surgeons were sent until the end of June. All R. A. M. C., officers in India are employed on military work except two officers both of whom are engaged on the personal staff. On the 24th of June it was suggested that R. A. M. C. officers should be obtained from England, and on the 3rd July a telegram was sent to the Secretary of State explaining our difficulties and asking him to send 16 R. A. M. C. officers to India. These 16 officers arrived in August and between the 7th and 10th September we despatched 11 R. A. M. C. officers to Mesopotamia to meet the official deficiencies reported in Force "D". The minimum requirements of assistant surgeons referred to in my note are requirements for military duty only and the figures 291 refer only to those employed on military duty. We began to withdraw the 99 assistant surgeons in civil employ in June by withdrawing 10 required for the British General Hospital and have withdrawn them in eleven calls, until now 28 assistant surgeons only are left in civil employ. We did not withdraw these 99 military assistant surgeons at once to meet the demands of Force "D" as the number demanded (i. e. 10) were supplied and we had to keep a supply of these officers for reinforcements of the four expeditionary forces, *vis.*, "A," "B," "D" and "E". The minimum requirements of 196 I. M. S. officers referred to in my note are purely military requirements and there were at that time only 16 I. M. S. officers in civil employ who were made available by the D. G. I. M. S., but whom we were not entitled to recall for military duty.

I know that the "Aerial" motor launch has been used with success in Mesopotamia. Government has supplied no motor launches for the use of Force "D." We did not supply them because we received a number of offers from private organisations. Moreover the General Officer Commanding, Force "D," never asked us for motor launches. It is difficult for us to know the local requirements, and we were and are dependent on Mesopotamia for information regarding such requirements. Prior to his telegram of the 7th December 1915, Surgeon General Hathaway had never asked us for a properly equipped river hospital steamer. We see his war diaries, but we get them very late, and in any case I do not consider that a suggestion in a war diary would be the normal manner of making a request for river steamers. The Expeditionary Force was not supplied with ambulance land transport as the information before the medical department was that the operations were to be conducted in country which was not suitable for wheeled transport. This information was received from the General Staff. In our organisation we have heretofore counted on army transport carts to supplement the regular land ambulance transport. We have already addressed Force "D" as to the adequacy of the normal medical organisation according to Indian Field Service Regulations to meet the requirements of a modern campaign. The statements I have made and which are recorded in the note which I have filed are made by me on behalf of the Medical Branch, I being the only officer of the Branch who was present throughout the entire period dealt with, although my responsibilities as Assistant Director, Medical Services (Indian Service), only began on the 7th June 1915.

W. H. VINCENT,—12-6-16.

Furtile statement of Major Melville, I.M.S., recorded at Simla on the 16th June 1916.

The number of I. M. S. officers, assistant surgeons and sub-assistant surgeons—

(a) on leave,

(b) working with the expeditionary forces in France or in England; and

(c) in civil employ in May 1915

is annexed.

I only came into my present office on the 7th June 1915 and I cannot say why assistant surgeons for Indian Expeditionary Force "D" were not drawn from the 99 assistant surgeons then available before June.

The better terms offered to sub-assistant surgeons, to which I refer in my note, apply only to civil sub-assistant surgeons, to induce them to undertake field service risks. We offered—

(1) ordinary civil rates of pay in addition to military pay of rank according to service;

(2) outfit allowance of Rs. 37 *plus* Rs. 15 for a great coat in case of men going to Europe or Rs. 8 for a warm coat in case of service elsewhere;

(3) while in India or on service such allowances and field service concessions as were authorised for military sub-assistant surgeons. The effect of this was practically to double the pay of third class sub-assistant surgeons. We have secured in this way the services of 55 civil sub-assistant surgeons. The result has been so disappointing that we have recently asked Government for sanction for certain further concessions which have been suggested after reference to all local Governments. These concessions include a local allowance varying from 50 to 100 according to rank from date of accepting liability for field service and promotion to the next higher grade after the ordinary interval without examination, and wound and family pension at civil rates. This has now been sanctioned. We do not anticipate very good results from it and so far I have had no applications. We have however secured 220 compounders for military service of whom 94 are in training and 121 on field service and 5 have been returned as unfit. We have acted on the principle that an assistant surgeon is equal to two sub-assistant surgeons in supplying men for the expeditionary force in France and for the General Hospitals in England.

We were able to send out 29 I.M.S. officers at the end of 1915, and in the early part of 1916, because of additions made to our staff owing to the admission of temporary Lieutenants, and because we received 27 I.M.S. officers back from overseas. We have despatched 10 and are now sending out 14 more I.M.S. Officers for river units and Hired Transports carrying convalescents. We have asked the India Office to arrange for the provision of 362 officers for Medical Units for mobilisation on the North-West Frontier and the needs of Internal India. The frontier brigades and the 1st (Peshawar) and 2nd (Rawalpindi) Divisions are mobilised already. We asked for 180 medical officers to meet the first shock of mobilisation of further Medical Units required by the latest scheme for defence of the N.-W. Frontier and intend to get the balance gradually as necessity arises. We expect 102 officers this month.

I did not mention the Z Hospital in my statement of the existing Hospitals in Mesopotamia, as the personnel only has been sent without the equipment. We are sending out the equipment as fast as we can. No. Y Hospital is also left out for the same reason. The equipment of the new Indian General Hospitals has been sent out in part and the balance is being despatched as quickly as it becomes available. The personnel will be supplied by Y and Z and by officers made available in Mesopotamia by the arrival of 97 R. A. M. C.

officers from England. These were sent at our request. The menials and other staff with the exception of sub-assistant surgeons have already sailed. The duties of Sub-Assistant Surgeons will be performed and by Medical subordinate staff made available by the arrival in Mesopotamia of 200 R. A. M. C. rank and file who accompanied the 97 R. A. M. C. officers mentioned above. The formal orders as to all charitable gifts going through the D. M. S. was issued in August 1915 but I believe that it was the practice to send gifts through this officer before these orders were issued. The practice in fact really prevailed from the beginning of the war.

Statement by General Knight on Hospital accommodation British sick and wounded Bombay and vicinity.

Colaba War Hospital ..	...	...	...	...	500 beds.
Freeman Thomas War Hospital	...	...	...	...	500 beds.
Victoria War Hospital	...	...	...	...	500 beds
Alexandra War Hospital	...	...	...	...	500 beds.
Taj Mahal War Hospital	...	...	...	...	500 beds.
Deolali War Hospital	...	...	...	...	1,000 beds.
Emergency beds for which cots are kept at the Hospitals	...			...	1,000 beds.
					<hr/> 4,500 beds.

Outside the Bombay Brigade—

Poona War Hospital	...	...	...	...	500 beds.
Secunderabad War Hospital	...	...	...	...	500 beds.
					<hr/> 5,500 beds.

Accommodation for British Convalescents—

Deolali Convalescent Camp	...	...	...	...	1,000 beds.
Mhow Convalescent Camp	...	...	...	...	500 beds.
Poona Convalescent Camp	...	...	...	...	500 beds
Secunderabad Convalescent Camp	...	...	...	...	500 beds.
Wellington Convalescent Camp	...	...	...	...	1,000 beds.
Murree Convalescent Camp	...	...	...	...	2,000 beds.
					<hr/> 5,500 beds. <hr/>

Telegram No. 11-45, dated 20th June 1916.

From—GENERAL KNIGHT,

To—SIR WILLIAM VINCENT, KT., I.C.S.

Your 131 accommodation in Bombay first April Colaba War Hospital five hundred beds and thirty beds for officers Byculla and thirty St. George. Added since then Freeman Thomas five hundred beds Victoria five hundred beds Taj Mahal five hundred beds Alexandra five hundred beds. Two latter have no patients with exception of sixty-six officers in Taj and large portion of that building is at present reserved for reserves waiting to go up Gulf. In addition arrangements have been made for thousand emergency beds in Bombay. Thousand bed hospital for Deolali due to land this week. Details rest of India not known.

Statement by the Director, Medical Services in India, dated 17th June 1916.

Comparative statement showing the Hospital and Convalescent accommodation at the following stations for British and Indian Troops on 1st April and 16th June 1916, respectively, as well as that now being prepared.

BRITISH TROOPS.				1ST APRIL.		16TH JUNE.		Now being prepared.
Station.			Hospital, etc.	Officers.	Men.	Officers.	Men.	Men.
Bombay ...	...	...	Colaba Stn. Hospital extn. ...	40	400	40	400	...
Do. ...	...	...	Freeman Thomas War Hospital	Nil	Nil	...	500	...
Do. ...	...	...	Byculla Club ...	30	On 1st April British sick and wounded were distributed to various Station Hospitals throughout India, total accommodation of which was 6,871.	...	...	...
Do. ...	...	...	St. Georges Hospital	30		...	...	...
Do. ...	...	...	Victoria War Hospital	Nil		...	500	...
Do. ...	...	...	Lady Hardinge Hospital extension,	Nil		...	100	...
Do. ...	...	...	Taj Mahal War Hospital	Nil		100	500	...
Do. ...	...	...	Alexandra War Hospital	Nil		...	500	...
Deolali ...	...	...	War Hospital, No. I	Nil		...	500	...
Do. ...	...	...	War Hospital, No. II	Nil		...	500	...
Poona ...	...	...	Sassoon Hospital ...	24		50	...	...
Do. ...	...	...	Wanourie Hospital ...	Nil		...	...	200
Do. ...	...	...	Deccan War Hospital	Nil		...	...	300
Secunderabad ...	...	...	Station Hospital extension	Nil	Convalescent accommodation for British Troops.	...	162	165
Do. ...	...	...	Hislop War Hospital	Nil		...	...	500
Karachi ...	...	...	Station Hospital ...	...	60	...	60	...
Do. ...	...	...	Civil Hospital ...	...	...	26	...	...
Deolali ...	...	...	Convalescent Section	...	...	...	500	500
Poona ...	...	...	Do. do.	...	...	...	...	500
Secunderabad ...	...	...	Do. do.	...	...	...	...	500
Mhow ...	...	...	Do. do.	...	...	...	...	500
Murree Hills ...	...	...	Hill Depôt ...	...	...	...	...	2,000
Wellington ...	...	...	Do. ...	...	...	...	...	1,000
INDIAN TROOPS				Hospital accommodation for Indian Troops in Bombay, Karachi and Deccan.				
Bombay ...	...	...	Lady Hardinge War Hospital ...	...	80	...	200	...
Do. ...	...	...	Marine Lines Hospital	...	500	...	500	...
Do. ...	...	...	Convalescent Camp ...	...	1,000	...	1,000	...
Poona ...	...	...	War Hospital ...	...	155	...	350	...
Karachi ...	...	...	Depôt Hospital ...	...	30	...	30	...
Do. ...	...	...	Nos. 1 and 8 A. I. G. Hospitals...	...	1,000	...	1,000	Mackinnon Mackenzie offices Karachi now being prepared 250.
Secunderabad ...	...	...	War Hospital ...	...	200	...	200	

Convalescent accommodation for Indian Troops.

Station.	Hospital, etc.	1ST APRIL.		16TH JUNE.		NOW BEING PREPARED.
		Officers.	Men.	Officers.	Men.	Men.
Karachi 	Convalescent Section ...	...	...	...	...	2,000
Dehra Dun 	Ditto ...	...	...	...	...	2,000
Secunderabad (Bolarum) ...	Ditto ...	...	...	...	...	2,000
Lucknow 	Ditto ...	...	...	...	...	2,000

Other special Indian Troops War Hospitals.

Station.	16th June.	Now being prepared.
Ambala War Hospital	114	54
Meerut „ „	320	.....
Roorkee	30	.....
Dehra Dun	100	.....
Lucknow	207	.....
Allahabad	75	.....
Bhavnagar	50	.....
Khandwa	300	.....
His Highness the Nizam's War Hospital	50	.....
Lahore	220	80
<i>Civil Hospitals—special war beds.</i>		
Lucknow	50	.....
Mayo Hospital, Lahore	100	50
Civil Hospital, Amritsar	100	.....
Karnal	50	.....
Jullundur	100	.....
<i>Other Special War Hospitals.</i>		
Salvation Army Hospital, Moradabad	60	.....
Datia War Hospital	100	.....
Benares Mint House	.....	200
Total	2,026	.....

APPENDIX IV.

C80AD

**A.—QUESTIONS ADDRESSED TO THE GENERAL STAFF
BRANCH, INDIA.**

c80AD

QUESTIONS ON WHICH THE COMMISSION DESIRE SPECIFIC INFORMATION.

I.

Q. "When it was decided to send the 6th Division to Mesopotamia what was the objective of the expedition, and was a plan of operations prepared?" Question 1.

A. On 26th September 1914 the Secretary of State wired that owing to threatening situation regarding Turkey the necessity might arise of making a demonstration at the head of the Persian Gulf.

On 5th October he stated that the object of the expedition was to occupy Abadan and protect the oilfields; and on the 1st November he directed that General Delamain should be ordered to attack Fao and clear the Turks out of the Shatt-al-Arab, if possible as far as Shamsuniya.

The original orders dated 8th October 1914 issued to General Delamain commanding the advanced portion of Indian Expeditionary Force "D," contemplated the occupation of Abadan Island with the object of:—

- (a) Protecting the oil refineries, tanks and pipe line.
- (b) Covering the landing of reinforcements should these be required.
- (c) Assuring the local Arabs of our support against Turkey.

Three alternative plans of operations were given to General Delamain:—

- (i) Plan for the protection of British interests at the head of the Persian Gulf.

In this the object was as stated above.

- (ii) Plan for the support of Muhammarah

In this, it was stated that: "should Turkey's attitude demand military action by the British, it is probable that the force sent from India to demonstrate at the head of the Persian Gulf will be directed to undertake the occupation of Basrah and of the Shatt-al-Arab up to that place."

- (iii) Plan for operations in Turkish Mesopotamia.

In this the object was the occupation of Basrah and of the Shatt-al-Arab up to that place.

The orders dated 31st October 1914 issued to General Sir A. Barrett on his sailing with reinforcements to take over command of Force "D," stated: "your objective will be telegraphed to you."

This objective was wired on 13th November to General Barrett at Basrah.

Telegram P., No. 1062, dated 26th September 1914.

From—The Secretary of State,

To—The Viceroy (Army Department).

Owing to the threatening situation regarding Turkey, the necessity may arise of making a demonstration at the head of the Persian Gulf. The 6th Division would suit very well for this object, but nothing should leak out regarding this change of direction and great secrecy should be maintained on the subject.

If it is decided by the Government to adopt this course, you should immediately embark the following, as if they were needed in Egypt very urgently, but at the same time give them sealed orders to go to the Shatt-al-Arab :—

1 brigade 6th Division.

2 Mountain Batteries.

Sappers.

Take no action until I send further instructions, which I will do tomorrow.

Telegram P., No. 1158, dated 5th October 1914.

From—The Secretary of State,

To—The Viceroy (Army Department).

With reference to Expedition D. The intention is to occupy Abadan with the force under orders, protect the oil tanks and pipe line, cover the landing of reinforcements in the event of such being necessary, and show Arabs that our intention is to support them against the Turks. With a warship at Mohammerah, the troops detailed are considered ample for the purposes mentioned. In the event of Turkey becoming a belligerent, the management of the expedition will devolve on you but I will of course communicate with you regarding the scope of operations. In the meanwhile you should make preparations for the despatch of the remainder of the Division, but we do not propose to send more troops to Abadan till Turkey shows her hand. It may however be advisable to despatch a first reinforcement to Bazidu as a near support. Should the political situation presage war, the whole division would be required and land transport would become necessary. With this in view you may consider it convenient to move the division gradually overland and sea to Karachi where it is presumed you will be able to equip with mule transport.

I have instructed Shakespear to endeavour to communicate with Bin Saud and he is leaving for Bombay by next mail.

I presume you will arrange for a Political Officer to accompany the leading troops.

The Admiralty have been requested to arrange with the Naval Commander-in-Chief for the disembarkation of troops. Question 1.

Kindly let me have a full expression of your views.

This is with reference to your H.-1285.

Telegram P., No. 1306, dated 31st October 1914.

From—The Secretary of State for India,

To—The Viceroy (Army Department).

Clear the line—Expedition "D." The Brigade at Bahrein should be instructed by you to proceed at once to the Shatt-el-Arab and to concert measures with Naval authorities for an immediate attack on Fao. The force will then clear the Turks out of the Shatt el-Arab and its vicinity as far, if possible, as Shamsuniya. After which arrival of reinforcements from India will be awaited.

Reinforcements may, the Admiralty advise, be sent from Bombay without escort, unless Naval Commander-in-Chief has any reason to the contrary. The "Konigsberg" has been located on the African Coast south of the Equator. Steps should be taken to inform Arab Chiefs in the Gulf and on the Aden side.

Probable date of despatch and composition of reinforcements should please be telegraphed by you.

This is with reference to my telegram No. 1303, dated the 30th October 1914.

II.

2. Q. "Did the original plan of operations provide for an advance up the Tigris and was the possibility of an advance on Baghdad contemplated? If so was the tonnage in river steamers required for the conveyance of troops and stores for such an advance calculated out and were steps taken to ascertain where and within what time that tonnage could be provided?" Question 2.

A. No, *vide* paragraph 1.

III.

3. Q. "(a) When the advance from Kut-al-Amarah to Baghdad was sanctioned it was known that the river transport available in Mesopotamia had proved barely sufficient for the requirements of one cavalry brigade and two infantry divisions. (b) It was also known that three brigades were coming from India, that two divisions were coming from France and that a third division was coming from Egypt. (c) Having regard to the fact that it would be difficult to collect or build extra steamers of suitable draught in the period within which the advance on Baghdad had to be made, how did the military authorities in India propose to provide the additional river transport, including hospital transport, required for these additional troops and what steps did they take to obtain it?" Question 3.

Question 3.

A. (a) The advance from Kut to Baghdad was sanctioned on 23rd October 1915.

It was known on that date that General Nixon desired extra river craft* and action had already been taken to procure from England (being unobtainable in India) craft in accordance with the specifications laid down by him.

* Because existing P class drew too much water?

General Nixon, when he stated that no addition to his present force was necessary to occupy Baghdad, made, however, no proviso that the arrival of additional river craft was a necessity to the carrying out of this operation.

(b) On 23rd October, Secretary of State wired that Nixon might advance on Baghdad if he were satisfied that the force he had available was sufficient. Two divisions would be sent to him as soon as possible, but owing to relief and transport arrangements, reinforcements would take time to despatch.

Prior to this, viz: on 10th October, His Excellency the Viceroy telegraphed to Sir J. Nixon that he was to maintain his position but was to make all preparations to be ready to advance if the reinforcements which had been asked for could be sent him.

In a private telegram No. 9-Camp, dated 21st October 1905, to the Secretary of State, His Excellency the Viceroy said that we were quite unable to send a further force of the strength of a division from India in the existing depleted military situation.

It was not till after the battle of Ctesiphon that the despatch of two infantry brigades, two cavalry regiments and one brigade of artillery to Mesopotamia was commenced.

As regards a third division coming from Egypt, this was not known on the 23rd October. It was only on the 28th January 1916 that we first received intimation that the despatch of a division from Egypt was possible.

(c) There was no question of the arrival of the two divisions from France in time to take part in the original advance on Baghdad. Immediately after the advance on Baghdad was sanctioned, and two divisions from France were promised, General Nixon, on the 24th October asked us to be ready to provide more river steamers and suggested some good Irrawaddy steamers.

As a result of this request General Nixon was furnished on the 10th November with a list of craft available in India, but differing materially and considerably from his previous specifications, and of these he had accepted 18 stern-wheelers, 15 paddlers, and 6 tugs by the end of 1915 for general transport purposes.

Quartermaster-general and Medical branches will no doubt provide any further detail required in this connection.

Correspondence regarding the advance on Baghdad.

Telegram P., No. S.-25180. dated 24th October 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Kut-al-Amarah.

Clear line.—Secretary of State wired on 23rd instant, as follows:—*Begins.*

War No. 3099. If Nixon is satisfied that the force he has available is sufficient for the operation he may march on Baghdad.

Two divisions will be sent to him as soon as possible, but owing to relief and transport arrangements, reinforcements will take time to despatch. Probable date will be wired later. Question 3.

Ends.

Please take action in accordance with above.

The receipt of the above should be acknowledged.

Telegram P., No. 308-218-O., dated 8th October 1915.

From—The G. O. C., Force "D,"

To—The Chief of the General Staff.

Clear the line.—No additions are necessary to my present force to beat Nur-ed-Din and occupy Baghdad; of this I am confident. But if the recovery of Baghdad should seriously engage the attention of the Turks and if the large organized force, necessary for such an operation, should be sent to Mesopotamia; then in addition to my present force one division (and I would like to have in addition one cavalry regiment) would be needed for the purpose of watching the lines of approach both by the Tigris and Euphrates and inflicting defeat on the enemy when he approaches within striking distance. Moreover for this purpose the Baghdad position is the best. By road Townshend at Aziziah is 48 miles and Kut 103 miles from Baghdad.

Repeated C. G. S., addresssd Secretary of State.

Telegram F., No. 1154, dated 10th October 1915.

From—The Viceroy of India,

To—GENERAL SIR JOHN NIXON, Basrah.

Clear the line.—I have received a telegram from the Secretary of State in which he says that he hopes to give me definite information as to the possibility of reinforcements, and that you should maintain your present position in the meantime and be prepared to advance if the reinforcements which have been asked for can be sent to you. He asks me to instruct you accordingly. Please regard this as an official instruction. I hope very much that the required troops will be forthcoming and that advance will not be much delayed.

Telegram P., No. 9-Camp, dated 21st October 1915.

From—The Viceroy of India,

To—The Secretary of State for India, London.

Clear the line.—Private. Baghdad. Your private telegram of 18th October. The Government of India agree entirely with His Majesty's Government as to the political and strategic advantages of the capture and occupation of Baghdad which are emphasised by the contents of Marling's telegram of October 15th; but we regard the internal security of India and the security of our frontier as our first pre-occupation and we are quite unable to send a further force of the strength of a division of troops from India to Mesopotamia in our present depleted military situation.

After consulting the Commander-in-Chief, I am of opinion that there are three alternatives before us—

(1) *Take and occupy Baghdad.*—This will present no difficulty whatever, provided we are guaranteed that reinforcements of a full division of troops reach

Question 3.

Mesopotamia within two months from now. This will be the most satisfactory solution.

(2) *Attack the Turks, raid Baghdad, capturing the few steamers that remain and stores, releasing the English female captives, destroying the railway north of Baghdad and dominating the city by river patrols from a camp south of Baghdad.*—A good political effect would be created by this, and the fact that we were not in actual occupation of Baghdad might not precipitate the despatch of Turkish reinforcements to recapture it. This, from a political point of view, would be only the second best alternative, but it would not require the addition of a whole division to carry it out.

From a military point of view, however, the Commander-in-Chief dislikes this solution and would prefer either (1) or (3). He considers that Baghdad, being a great centre of supplies and a valuable base for whichever side is in possession of it, we must either hold it ourselves or keep well away from it. He does not think it possible to dominate it from the south. We should have to be camped close to the suburbs which, in his opinion, gives us all the disadvantages, and none of the advantages, of occupation. His view is that, unless we hold Baghdad, Turkish reinforcements will be gradually dribbled into it and we may be attacked in strength without warning unless we are as far away as Kut-al-Amarah. Nixon goes so far as to consider that even without reinforcements his army would be safer in and north of Baghdad than anywhere south of it, and the Commander-in-Chief lays great stress on the value of the Baghdad-Samarra railway in that it would prevent any possibility of a surprise attack on us. He considers that all our interests lie in our holding Baghdad, but recognises that, without addition to our present forces, we might be driven out of it, and that this might involve a very difficult and dangerous retreat down the river. Shortly, he is opposed to a raid on Baghdad followed by a withdrawal. He is strongly in favour of holding Baghdad if reinforcements are forthcoming. If they are not forthcoming, he prefers the safety of the Kut-al-Amarah position. He feels, however, that the present military situation is such that it may at any time become necessary to occupy Baghdad, even with our existing forces, and accept the risks involved.

My own comment upon the Commander-in-Chief's view is that, from a political point of view, it would be disastrous to be driven out of Baghdad.

(3) *Remain in a defensive position at Kut-al-Amarah.*—This is a course that does not appeal to us, for it shows weakness which will be recognised both by the Turks and the tribes, and may force our hands into advancing after all.

Having placed these alternatives before you, I leave the question with confidence for His Majesty's Government to decide; but I trust that the decision will be in favour of alternative number one.

Telegram P., No. 12619, dated 28th January 1916.

From—The Secretary, War Office, London,

To—The Commander-in-Chief in India, Delhi.

The organization necessary for any divisions it might be necessary to despatch to Mesopotamia from Egypt, is under consideration. It is suggested that first line transport be expanded as in the case of the Meerut and Lahore divisions for despatch with the divisions.

Could any further needs be supplied by you or would additional transport be required? If the latter, what would you require and could G. S. wagons be used?

Telegram P., No. 3251, dated 31st January 1916.

Question 3.

From—The Secretary of State for India,

To—The Viceroy (Army Department), Delhi.

The despatch of troops from England and Egypt has been delayed for the want of shipping. I am however satisfied that the Admiralty and the War Office are fully alive to the emergency—

- (a) The four territorial battalions are equipped fully and are ready to depart. These units are very efficient and as they expected to be sent to France, I trust you will be able to employ them Trans-Indus.
- (b) The embarkation for India of the Indian battalions in Egypt is about to take place.
- (c) As regards the Garrison battalions still due, they are ready to embark in this country as soon as transports are available.
- (d) To replace recent casualties 2,000 drafts have been got ready.

I trust that the whole of (a), (b) and (d) will have departed by the middle of February 1916.

The Commander-in-Chief in Egypt, has been warned to be ready, with a view to reinforce if necessary, a Division in addition to above.

Telegram P., No. 1008, dated 24th October 1915.

From—The General Officer Commanding, Force "D," Kut-al-Amarah,

To—The Chief of the General Staff.

Clear the line.—I have received your telegram No. S.-25-180. Kindly be ready to provide more river steamers and pack and draught mules and carts. Some of the river steamers should reach me in advance of the reinforcement.

I would propose that some good Irawaddy steamers be procured for the purpose; no armour is necessary. There are signs of the river rising. Camels from India are not suitable. I shall make use of local transport as much as possible.

The draught of the ships conveying the troops must not exceed 18' 6" in order to cross Fao bar.

Telegram P., No. H.-9386, dated 25th November 1915.

From—The Viceroy (Army Department),

To—The Secretary of State for India.

We have thought it essential in view of Sir J. Nixon's situation in front of superior forces, to reinforce him temporarily with one brigade Territorial field artillery, two infantry brigades one cavalry regiment and one company sappers and miners. All these must return to India when replaced by the Meerut and Lahore Divisions. The units going are:—

- (1) Headquarters, 34th Infantry Brigade, 1-5th Royal West Surrey Regiment.
- 31st Punjabis;
- 112th Infantry;
- 114th Mahrattas.

Question 3.

(2) Headquarters, 35th Infantry Brigade, 1-5th East Kent Regiment.

37th Dogras ;

97th Infantry ;

102nd Grenadiers.

(3) No. 13 Company, Sappers and Miners.

(4) 12th Cavalry.

(5) Headquarters, 1st Home Counties Brigade, R. F. A., 1-1st, 1-2nd and 1-3rd Sussex Batteries.

The embarkation of these units will commence on the 28th November and should be completed before the 6th of the following month.

IV.

Question 4.

Q. "In deciding on the expediency or practicability of General Nixon's proposals for an advance on Baghdad, did the General Staff consider the administrative difficulties which they entailed and were the Administrative Services concerned, *viz.*, the Quartermaster-General's and Medical Branches, consulted before a decision was arrived at in the matter? Did these Branches raise no objections?"

A. General Nixon, after expressing his opinion that with his present force he could take Baghdad, was ordered to maintain his position and be prepared to advance, if the reinforcements which had been asked for could be sent to him.

It is not known whether he was satisfied that his existing land and river transport was sufficient for the operations; no record of a contrary opinion is in existence at Army Headquarters. But on 24th October, on receipt of information that 2 Divisions were being sent to him, General Nixon asked for more river and land transport. The inference is that he considered his available transport sufficient for his then force.

The demand above mentioned was foreseen in an appreciation made in General Staff Branch signed 11th October 1915, and no delay occurred in taking steps to comply with his demand.

As regards consulting the Administrative Branches concerned, the procedure followed at Army Headquarters ensures that all Branches are conversant with all current matters affecting them.

The procedure is :—

- (a) All telegrams are circulated through the War Section to Branches in any way concerned with their contents and action taken as may be necessary.
- (b) All important current questions are discussed at meetings held by the Commander-in-Chief, until lately, as a rule three times a week. At these meetings any matters requiring decision are brought up and orders given thereon, a procedure which ensures the cooperation of all Branches of Army Headquarters.

V.

Question 5.

Q. "(a) In all normal military organisations, special land transport is allotted to the Medical Services. Why was not this done in the case of the

Force in Mesopotamia? (b) Presuming that the country did not always lend itself to the use of ambulance tongas as movements were usually by water, why was no provision made for hospital river steamers in the original Organisation Orders of the Force?"

A. (a) The original allotment of Medical units to the 6th Division was the normal one of 2 British Field ambulances and 3 Indian Field ambulances : these went with their complete normal 1st and 2nd line transport.

The usual scale of wheeled ambulances was not sent, at the instance of Medical Branch, apparently on account of the absence of roads and the other physical difficulties in the way of wheeled traffic.

In lieu of these the usual allotment of 160 riding animals was increased to 400.

(b) The original objective of Force "D" was Basrah only. Up to that place and beyond as far as Kurnah, the river is navigable for ocean going steamers, there was therefore no need to make provision for special hospital river steamers.

VI

Q. " Was the General Staff in India ever given any indication by Government that the occupation of Basrah was the first step in a series of operations which was to culminate in the occupation of Baghdad ?"

Question 6.

A. No.

VII

Q. " We understand that, up to the capture of Amarah, the policy of the Government of India and the Secretary of State for India as regards Mesopotamia was one of caution and that the advance to Kut-al-Amarah was sanctioned with some reluctance. Is this correct? If so, can you tell us what caused the change of policy which authorised the advance to Baghdad? "

Question 7.

A. The answer to the first question is in the affirmative.

As regards the causes of the change of policy which authorised the advance to Baghdad, please see the " Report of an Inter-Departmental Committee on the strategical situation in Mesopotamia. "

VIII.

Q. " We have been told that when, on the creation of the Imperial General Staff, certain spheres were allotted to the War Office and India, respectively, for the purpose of collecting military intelligence; Mesopotamia was deliberately excluded from the Indian sphere, which was limited to the Persian Gulf including Basrah and the mouth of the Shatt-al-Arab. Is this correct? "

Question 8.

A. The statement is correct.

IX

Question 9.

Q. " If so, is it correct to suppose that the General Staff in India were not required to prepare plans for operations in Mesopotamia and that their responsibilities in this respect at the beginning of the war were confined to preparing plans for—

- (1) the capture of Basrah, and
 - (2) the security of the Persian Oil Fields ? "
-

A. The General Staff aim at keeping up plans for operations in all theatres which fall within their sphere of Intelligence responsibility. The plans for operations in that portion of Mesopotamia which fell within their allotted sphere were ready before the emergency arose and were acted on.

B.—QUESTIONS ADDRESSED TO THE GOVERNMENT
OF INDIA.

Letter No. 93, dated 10th May 1916.

From—SIR WILLIAM VINCENT, KT. Medical Commission,

To—The Secretary to the Government of India, Army Department.

I have the honour to enclose herewith a memorandum of certain points on which the commission appointed to investigate the medical arrangements in Mesopotamia will be glad on their return to India to receive information from the Government. The memorandum is sent in advance in order to avoid delay in collecting the information required.

2. The Members of the Commission propose to leave Basrah, if possible, next week and the exact date of departure will be communicated to you later. I am to add that the war diaries which have been received from the Chief of the General Staff relate to the latter part of the war only. In view of the amended terms of reference the committee would be glad when they return to India to receive similar printed extracts from war diaries from the commencement of the campaign.

(Questions attached).

QUESTIONS ON WHICH THE COMMISSION DESIRE SPECIFIC INFORMATION.

I.

*Question :—*Were the Military Authorities ever offered a complete General Hospital, for use in Mesopotamia or India, by the British Red Cross Society and was this offer refused? If so, for what reason? The Commission would like to see any correspondence on this subject.

*Answer :—*No offer of a General Hospital by the British Red Cross Society has been received in the Medical Branch at Army Headquarters.

II.

*Question :—*When did the Government of India first take steps to provide ocean-going hospital ships for use in Mesopotamia? Did they equip ships at their own cost or did they at first entirely rely on private offers such as those of the "Madras" and "Loyalty"? Did the authorities in Mesopotamia or Bombay address the Chief of the General Staff setting forth the necessity for Hospital Ships capable of crossing the bar at the mouth of the Shatt-al-Arab? If so, the Commission would like to see the correspondence on this subject.

*Answer :—*Indian Expeditionary Force "D" originally consisted of the 6th (Poona) Division which was mobilized on the 7th September 1914, and disembarked in Mesopotamia on the 24th November 1914. This Division was at first detailed for Indian Expeditionary Force "A", but on the 26th September 1914, the question of its despatch to Mesopotamia was raised. At this time both the "Madras" and "Loyalty" had been accepted and were being equipped. These two vessels were considered sufficient for the requirements of Indian Expeditionary Force "B", and "D", and the provision of hospital ships for these forces at the expense of the State was therefore unnecessary. Copies of the correspondence from the authorities in Mesopotamia regarding the necessity for hospital ships being capable of crossing the bar at the mouth of the Shatt-el-Arab is placed below. This point was borne in mind when, owing to the augmentation of the force, additional ships were chartered and equipped in India.

Telegram No. H.-2-56, dated 24th May 1915.

From—The Deputy Director, Medical Store, Force "D," Basrah.

To—The Director, Medical Services, India.

As "Madras" only hospital ship able to cross bar and large number of invalids accumulating, can you send another hospital ship at once as far as lightship Shatt-al-Arab to evacuate "Madras" and allow her to return here immediately. Please reply urgent. Also probable date of second Hospital Ship's arrival.

Telegram P., No. 41-2-Q., dated 26th May 1915.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

When the "Madras" (Hospital Ship) has sailed to-day, there will only be accommodation available on the "Franz Ferdinand," as both British and Indian General Hospitals remain full.

In his telegram No. H.-256, dated May 24th, to the address of the Director of Medical Services, Simla, the Deputy Director of Medical Services asked for a second hospital ship. If this second ship is sent to Fao bar a third steam vessel will be needed, for the purpose of being used as a ferry boat between the Base Hospital and the ship referred to above.

This third steam vessel will be needed even if the second hospital ship is not sent, as in such a case she will be wanted for extra hospital accommodation; impending operations will render such increased hospital accommodation necessary.

Please let me know if you can arrange a steam vessel which would serve either of the purposes indicated and would be at my disposal here for as long as required.

One of the transports now *en route* might be possibly kept here for the purpose.

The vessel referred to is required to reach this place at an early date.

Telegram P., No. S.-11039, dated 27th May 1916.

From—The Chief of the General Staff.

To—The G. O. C., Force "D," Basrah.

If you consider that the "Bankura" can be suitably employed temporarily as a hospital ship in the Shatt-al Arab, please arrange to detain her, and wire your decision to me.

This refers to your 41-2-Q., of 26th instant.

Telegram P., No. 11025-S., dated 30th May 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

"Karadeniz" is in the opinion of the Director of Marine more suitable than "Bankura" as a stationary hospital ship. The former is now at Basrah. "Bankura" should be sent back to Bombay if you approve of the above.

This is in continuation of my telegram of May 27th, No. S.-11039.

Telegram No. 41-13-Q, dated 5th June 1915.

Question 2.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

S.-11419. "Karadeniz" is unsuitable as hospital ship but could, when unloaded, be used for prisoners instead of "Ellenga" as first proposed. "Ellenga" could then be retained for hospital instead of "Bankura" if preferred. Please wire which of latter two should be returned. Total number of prisoners as yet not known.

Telegram P., No. S.-11800, dated 8th June 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

Please despatch the "Bankura" to Bombay immediately, and inform me by telegraph on what date she will reach that port. You are to keep the "Ellenga."

This is with reference to your telegram No. 41-13-Q., dated 5th June.

Telegram No. M.X.-1246, dated 10th September 1915.

From—The Director, Royal Indian Marine,

To—The Director, Medical Services in India.

Following telegram received from Marine Transport Officer Basrah. *Begins.* Deputy Director, Medical Services, asks me to wire you that only one hospital ship required at present and the other need not be sent for fourteen days, when it is hoped a vessel that can cross bar will come *Ends.* On this telegram "Sicilia" due to sail twelfth is detained pending your instructions. Please reply very urgent.

Telegram No. S.-21180, dated 13th September 1915.

From—The Chief of the General Staff.

To—The G. O. C., Force "D," Basrah.

Director, Royal Indian Marine, wires that your Deputy Director, Medical Services has made suggestions to him, through Marine Transport Officer, Basrah, regarding movements of hospital ships.

These movements are controlled from Army Headquarters where all representations should be addressed.

Please refer to your Deputy Director, Medical Services' telegram No. H.-4-64, dated 26th June 1915, and H.-4-75, dated 2nd July 1915, which shows that 2 hospital ships were required to call regularly in order to evacuate your sick and wounded.

We made arrangements accordingly.

We desire that these hospital ships should be utilized to the limit of their accommodation to convey all classes of sick and wounded, thus obviating as far as possible the necessity for using Transports for his purpose.

Please wire in view of this when you require another hospital ship.

Telegram No. H.-4-299, dated 15th September 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

S.-21180 only intimation about hospital ships received through S.M.T.O. and answer was returned through the same channel. Two hospital ships required monthly at regular interval of 14 days. Hospital ships are being fully utilised.

Question 2. Please send next Hospital ship 14 days after "Loyalty" leaves the Bar and as monsoon will be over a ship capable of crossing Bar and anchoring off Basrah should be sent.

Telegram No. S.-21707, dated 18th September 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Amarah.

Reference your Deputy Director of Medical Services H.-4299, 15th September. The interval of 14th days is not convenient, having regard to time to be spent in dock, etc. It is suggested that a hospital ship leave Bombay for Basrah every ten days. Do you concur.

Telegram No. H.-4-326, dated 20th September 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Reference your S.-21707 of 18th September request one hospital ship which can cross the bar and anchor off Basrah be sent in ten days. Another hospital ship to be sent to Basrah the middle of October. After this improvement in health of troops due to climatic conditions will probably only require one hospital ship to be sent monthly.

Telegram No. H.-4-329, dated 22nd September 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Kindly inform whether in future a hospital ship light enough to cross the bar will always be sent to Basrah. The ship that is used for taking the patients across the bar is urgently required as a depot ship and platforms have to be built on her if she has to be again used it will cause great inconvenience and trouble to break it all up.

Telegram No. S.-22251, dated 23rd September 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Amarah.

Your D.D.M.S. No. H.-4-329, dated 22nd September 1915.

Until "Varela" is ready about the 1st week in October no hospital ship light enough to cross the bar will be available. Director, Royal Indian Marine, reports that weather conditions will not permit of the lightening of the "Takada" and "Madras" until about the middle of October. Measures for embarking sick outside the bar should continue in the meantime.

Letter No. H.-4-392, dated 1st November 1915.

From—The Deputy Director of Medical Services, Force "D", General Headquarters.

To—The Chief of the General Staff.

I have the honour to state that I consider it would be advisable to place one hospital ship entirely at my disposal for removing the sick and wounded from Mesopotamia to India.

This ship should be of a draught capable of crossing the bar at any season of the year.

She would disembark her cases at Bombay and immediately return to Basrah. Her services could be utilized as a sanatorium for convalescents until a sufficient number of cases had collected to make use of her again as a transport.

This hospital ship ought to meet all my requirements during the cold weather.

Probably she would only remain at Basrah a few days at a time.

Details regarding hospital ships.

Name.	Whether capable of crossing the bar at Basrah.	FITTING OUT.		Beds for Officers.	Beds for Rank and File.	Insanes.	Total.	—
		From	To					
Assaye ...	No ...	22nd May 1915 ...	5th July 1915 ...	56	360	4	420	Fitted for Admiralty for Mediterranean.
†Loyalty ...	No ...	4th October 1914	29th November 1914.	50	282	5	337	Privately owned Fitted. by Dockyard.
†Madras ...	In fine weather	Not known	Not known	32	291	5	328	Privately owned. Madras War Fund.
Syria ...	Yes ...	Ditto	Ditto	28	383	7	418	Fitted in England by Admiralty.
Sicilia ...	Yes ...	Ditto	Ditto	45	330	2	379	
Gascon ...	Not known ...	Ditto	Ditto	...	...	...	...
Takada ...	In fine weather	4th June 1915 ...	25th July 1915 ...	40	483	3	526	Fitted by orders of Government of India.
Varela ...	Yes ...	27th August 1915	13th October 1915	23	487	2	512	
Varsova ...	Yes ...	17th March 1916	26th April 1916...	35	432	2	469	
Vita ...	Yes ...	3rd April 1916 ...	16th May 1916 ...	13	405	2	420	

Question 2.

Summary of Table following.

Ship.	No. of Voyages.	Total carried.	British Officers.	British R. & F.	Indian Officers.	Indian R. & F.	Miscella- neous.	Remarks.
Madras	13	5,941	155	991	70	2,938	1,287	
Varela	11	4,667	196	1,945	52	2,056	418	
Takada	10	4,243	136	1,847	14	1,331	915	
Sicilia	7	2,914	126	832	59	1,459	438	
Syria	5	1,954	63	372	22	1,369	1,964	
Thongwa	2	1,632	6	62	...	1,139	425	
Edavana	2	1,409	42	150	50	1,070	97	
Elephanta	2	1,308	31	375	22	880	...	
Guildford Castle	3	1,218	12	562	18	495	131	
Bankura	3	911	2	...	...	246	663	
Ellenga	2	800	4	250	14	399	133	
Torilla	2	669	15	...	12	...	642	
Ellora	1	652	8	31	25	588	...	
Aronda	1	554	36	31	1	431	55	
... ..	1	460	8	193	1	200	58	
Pentakota	2	431	1	30	7	178	215	
Assaye	1	420	5	415	...	...	...
Gascon	1	414	15	337	...	...	62	
Varsova	1	406	27	197	14	168	...	
Glenart Castle	1	388	4	82	...	225	77	
Chakdara	1	329	11	100	13	204	1	
Loyalty	2	294	2	...	2	290	...	1 voyage empty.
Erinpura	1	224	8	41	3	142	30	
Taroba	1	177	...	...	...	...	177	
Purnea	1	51	20	15	16	...	...
Barala	1	10	5	5	...	...	...

Statistics of wounded and invalids from Basrah to India.

Ship.	Left Basrah.	British Officers.	British R. and F.	Indian Officers.	Indian R. and F.	Miscellaneous.	Total.	Remarks.
*Erinpora
*Tordilla
†Madras
†Madras
*Thongwa
†Madras
†Madras
*Bankura
†Madras
*Thongwa
*Barala
†Madras
*Torilla
Takada
*Bankura
†Madras
†Madras
Sicilia
*Tarob2
Varela
*Ellenga
Takada
Varela
Varela

c80AD

Statistics of wounded and invalids from Basrah to India—contd.

Ship.	Left Basrah.	British Officers.	British R. and F.	Indian Officers.	Indian R. and F.	Miscellaneous.	Total.	Remarks.
Takada	16	147	...	...	163	
*Bankura	2	...	...	...	248	
Varela	31	159	6	33	482	
Takada	
*Pentakota	200	200	
Varela	20	414	
Sicilia	34	120	16	23	511	
Takada	36	126	20	366	522	
†Loyalty	9	147	...	...	294	
*Teesta	2	...	2	...	460	
Guldford Castle	8	193	1	58	452	
*Ellora	268	6	12	652	
Varela...	8	31	25	...	433	
*Edavana	41	392	...	...	619	
Sicilia...	2	...	22	97	467	
Takada	19	87	19	44	399	
†Loyalty	399	...	(Empty.)
Syria...	309	
Glenart Castle	5	...	8	...	388	
†Madras	4	82	...	77	432	
Guldford Castle	3	77	2	61	264	
Sicilia...	11	61	471	
Syria...	7	121	8	70	389	
Varela...	4	13	406	
†Madras	85	1	129	483	
	20	157	9	1		

Takada	...	...	...	...	...	10th March 1916	...	...	11	191	9	396	4	611
Guildford Castle	...	...	...	...	...	16th March 1916	...	...	12	294	1	137	58	502
Sicilia	...	...	...	...	...	26th March 1916	...	...	12	81	7	315	21	416
Varela	...	...	...	...	...	28th March 1916	...	...	15	189	4	200	81	499
Syria	...	...	...	...	...	30th March 1916	...	...	13	...	4	400	...	417
†Pentakota	...	...	...	...	...	4th April 1916	...	...	1	30	7	178	15	211
†Madras	...	...	...	...	...	5th April 1916	...	...	29	...	9	393	96	517
Assaye	...	...	...	...	...	8th April 1916	...	...	5	415	...	...	...	420
*Elephanta	...	...	...	...	...	10th April 1916	...	...	14	300	9	515	...	838
Takada	...	...	...	...	...	10th April 1916	...	...	22	446	...	22	...	490
Varela	...	...	...	...	...	11th April 1916	...	...	17	187	...	293	58	555
Syria	...	...	...	...	...	15th April 1916	...	...	22	366	...	...	...	388
*Aronda	...	...	...	...	...	16th April 1916	...	...	36	31	1	431	55	554
Sicilia	...	...	...	...	...	17th April 1916	...	...	99	241	...	...	94	361
†Madras	...	...	...	...	...	23rd April 1916	...	...	24	163	13	295	...	495
Varela	...	...	...	...	...	24th April 1916	...	...	15	187	14	283	...	499
*Chakdara	...	...	...	...	...	25th April 1916	...	...	11	100	13	204	1	329
*Edavana	...	...	...	...	...	28th April 1916	...	...	40	150	28	572	...	790
Takada	...	...	...	...	...	29th April 1916	...	...	20	427	...	175	12	634
*Purnea	...	...	...	...	...	3rd May 1916	...	...	20	15	16	...	...	51
Varsova	...	...	...	...	...	3rd May 1916	...	...	27	197	14	168	...	406
*Elephanta	...	...	...	...	...	4th May 1916	...	...	17	75	13	365	...	470
Sicilia	...	...	...	...	...	6th May 1916	...	...	15	132	...	131	102	380
Gascon	...	...	...	...	...	7th May 1916	...	...	15	337	...	...	62	414
Syria	...	...	...	...	...	10th May 1916	...	...	23	6	6	301	125	461
*Ellenga	...	...	...	...	...	10th May 1916	...	...	4	250	14	399	...	667
†Madras	...	...	...	...	...	12th May 1916	...	...	24	172	4	287	...	487
Varela	...	...	...	...	...	12th May 1916	...	...	3	260	...	201	...	464
Takada	...	...	...	...	...	15th May 1916	...	...	19	320	...	290	...	629

Notes.—These numbers have been taken from the cables sent by the P. M. T. O., Busra to me when advising vessels departure. They cannot be taken as accurate owing to the occasional mutilation of wires, deaths board, etc., but are a very close approximation of the numbers carried.

Arrivals and departures of vessels carrying wounded and invalids from Basra to India.

Ship.			Left Bombay.	Arrived Basra.	Left Basra.	Arrived Bombay.
• Erinpura	...	...	.....	.....	3rd December 1914 ...	9th December 1914.
• Torilla	...	...	.....	.....	21st December 1914 ...	28th December 1914.
† Madras	...	...	21st December 1914 ...	27th December 1914 ...	3rd January 1915 ...	10th January 1915.
† Madras	...	...	22nd February 1915 ...	26th February 1915 ...	1st March 1915 ...	8th March 1915.
• Thongwa	...	...	.....	.....	22nd April 1915 ...	28th April 1915.
† Madras	...	...	25th April 1915 ...	1st May 1915 ...	6th May 1915 ...	10th May 1915.
† Madras	...	...	17th May 1915 ...	24th May 1915 ...	26th May 1915 ...	2nd June 1915.
• Bankura	...	...	.....	.....	18th June 1915 ...	25th June 1915.
† Madras	...	...	8th June 1915 ...	14th June 1915 ...	18th June 1915 ...	23rd June 1915
• Thongwa	...	...	.....	.....	23rd June 1915 ...	30th June 1915.
• Barala	...	...	.....	.....	5th July 1915 ...	10th July 1915.
† Madras	...	...	2nd July 1916 ...	8th July 1915 ...	8th July 1915 ...	14th July 1915.
• Torilla	...	...	.....	.....	27th July 1915 ...	3rd August 1915.
Takada	...	...	25th July 1915 ...	31st July 1915 ...	31st July 1915 ...	6th August 1915.
• Bankura	...	...	.....	.....	3rd August 1915 ...	7th August 1915.
† Madras	...	...	31st July 1915 ...	6th August 1915 ...	6th August 1915 ...	11th August 1915.
† Madras	...	...	18th August 1915 ...	23rd August 1915 ...	24th August 1915 ...	30th August 1915.
Sicilia	...	...	25th September 1915...	30th September 1915...	1st October 1915 ...	7th October 1915.
• Taroba	...	...	.....	.....	10th October 1915 ...	16th October 1915.

Varela	...	...	...	14th October 1915	...	19th October 1915	...	21st October 1915	...	27th October 1915.
Ellenga	...	...	...	...	...	...	...	1st November 1915	...	7th November 1915.
Takada	...	...	...	28th October 1915	...	3rd November 1915	...	3rd November 1915	...	9th November 1915.
Varela	...	...	...	6th November 1915	...	11th November 1915	...	14th November 1915	...	19th November 1915.
Varela	...	...	...	28th November 1915	...	3rd December 1915	...	8th December 1915	...	13th December 1915.
Takada	...	...	...	29th November 1915	...	4th December 1915	...	9th December 1915	...	15th December 1915.
* Bankura	...	...	...	...	...	...	...	13th December 1915	...	20th December 1915.
Varela	...	...	...	20th December 1915	...	25th December 1915	...	29th December 1915	...	2nd January 1916.
Takada	...	...	...	23th December 1915	...	31st December 1915	...	2nd January 1916	...	7th January 1916.
* Pentakota	...	...	...	...	...	...	...	13th January 1916	...	19th January 1916.
Varela	...	...	...	9th January 1916	...	14th January 1916	...	17th January 1916	...	22nd January 1916.
Sicilia	...	...	...	12th January 1916	...	19th January 1916	...	20th January 1916	...	26th January 1916.
Takada	...	...	...	14th January 1916	...	19th January 1916	...	21st January 1916	...	28th January 1916.
† Loyalty	...	...	...	19th January 1916	...	23rd January 1916	...	25th January 1916	...	30th January 1916.
* Teesta	...	...	...	...	...	...	...	27th January 1916	...	2nd February 1916.
Guldford Castle	...	...	...	17th January 1916	...	23rd January 1916	...	28th January 1916	...	3rd February 1916.
* Ellora	...	...	...	...	...	...	...	1st February 1916	...	7th February 1916.
Varela	...	...	...	27th January 1916	...	2nd February 1916	...	4th February 1916	...	9th February 1916.
* Edavana	...	...	...	...	...	...	...	4th February 1916	...	11th February 1916.
Sicilia	...	...	...	29th January 1916	...	4th February 1916	...	7th February 1916	...	13th February 1916.
Takada	...	...	...	2nd February 1916	...	7th February 1916	...	11th February 1916	...	16th February 1916.
† Loyalty	...	...	...	6th February 1916	...	11th February 1916	...	13th February 1916	...	17th February 1916.

Note—Vessels marked* are Government Transports returning from Basrah (not fitted as Hospital Ship).
Vessels marked† are Private owner Hospital Ships.

Arrivals and departures of vessels carrying wounded and invalids from Basrah to India—concl'd.

Ship.			Left Bombay.		Arrived Basrah.		Left Basrah.		Arrived Bombay.	
Syria	3rd February 1916 ...	...	9th February 1916 ...	...	13th February 1916 ...	...	20th February 1916.
Glenart Castle	10th February 1916	...	20th February 1916 ...	...	26th February 1916.
† Madras	11th February 1916 ...	...	16th February 1916	...	20th February 1916 ...	...	26th February 1916.
Guildford Castle	13th February 1916 ...	...	19th February 1916	...	23rd February 1916 ...	...	28th February 1916.
Sicilia	27th February 1916 ...	...	5th March 1916	...	8th March 1916 ...	...	13th March 1916.
Syria	3rd March 1916 ...	...	8th March 1916	...	10th March 1916 ...	...	16th March 1916.
Varela	29th February 1916 ...	...	6th March 1916	...	11th March 1916 ...	...	16th March 1916.
† Madras	6th March 1916 ...	...	11th March 1916	...	14th March 1916 ...	...	19th March 1916.
Takada	7th March 1916 ...	...	12th March 1916	...	19th March 1916 ...	...	24th March 1916.
Guildford Castle	6th March 1916 ...	...	12th March 1916	...	16th March 1916 ...	...	21st March 1916.
Sicilia	17th March 1916 ...	...	23rd March 1916	...	26th March 1916 ...	...	1st April 1916.
Varela	20th March 1916 ...	...	26th March 1916	...	28th March 1916 ...	...	2nd April 1916.
Syria	21st March 1916 ...	...	27th March 1916	...	30th March 1916 ...	...	4th April 1916.
* Pentakota	4th April 1916 ...	...	10th April 1916.
† Madras	27th March 1916 ...	...	2nd April 1916	...	5th April 1916 ...	...	10th April 1916.
Assaye	3rd April 1916	...	8th April 1916 ...	...	13th April 1916.
* Elephantia	10th April 1916 ...	...	16th April 1916.
Takada	29th March 1916 ...	...	3rd April 1916	...	10th April 1916 ...	...	16th April 1916.
Varela	4th April 1916 ...	...	9th April 1916	...	11th April 1916 ...	...	16th April 1916.

Syria ...	...	...	...	7th April 1916	...	12th April 1916	...	15th April 1916	...	20th April 1916,
*Aronda	...	...	...	...	...	.....	...	16th April 1916	...	22nd April 1916.
Sicilia ...	...	...	...	9th April 1916	...	16th April 1916	...	17th April 1916	...	24th April 1916.
†Madras	...	...	...	14th April 1916	...	19th April 1916	...	23rd April 1916	...	28th April 1916.
Varela ...	...	...	...	18th April 1916	...	23rd April 1916	...	24th April 1916	...	1st May 1916.
*Chakdara	...	...	...	...	...	.....	...	25th April 1916	...	30th April 1916.
*Edavana	...	...	...	...	...	.....	...	28th April 1916	...	3rd May 1916.
Takada	...	...	...	21st April 1916	...	26th April 1916	...	29th April 1916	...	3rd May 1916.
*Purnea	...	...	...	...	...	.....	...	3rd May 1916	...	8th May 1916.
Varsova	...	...	...	27th April 1916	...	2nd May 1916	...	3rd May 1916	...	8th May 1916.
*Elephantn	...	...	...	...	...	.....	...	4th May 1916	...	10th May 1916.
Sicilia ...	...	...	...	27th April 1916	...	3rd May 1916	...	6th May 1916	...	11th May 1916.
Gascon	...	...	...	26th April 1916	...	3rd May 1916	...	7th May 1916	...	13th May 1916.
Syria ...	...	...	...	4th May 1916	...	9th May 1916	...	10th May 1916	...	17th May 1916.
*Ellenga	...	...	...	...	...	.....	...	10th May 1916	...	18th May 1916.
†Madras	...	...	...	4th May 1916	...	10th May 1916	...	12th May 1916	...	17th May 1916.
Varela ...	...	...	...	5th May 1916	...	10th May 1916	...	12th May 1916	...	18th May 1916.
Takada	...	...	...	7th May 1916	...	12th May 1916	...	15th May 1916	...	21st May 1916.

NOTE.—Vessels marked* are Government Transports returning from Basrah (not fitted as Hospital Ships).
Vessels marked† are Private owned Hospital Ships.

III.

Question 3.

Question :—Is it correct that the field ambulances of the 6th and 12th Divisions sent to Mesopotamia were not equipped with ambulance tongas or any wheeled transport suitable for the conveyance of sick and wounded? If so, what was the reason for this, and why was this deficiency not made good when it was known that such transport could be used.

Answer :—The field ambulances of the 6th and 12th Divisions were provided with 80 riding mules each in lieu of 8 ambulance tongas. The field ambulances despatched with other Indian Expeditionary Forces were similarly equipped.

In accordance with the "Orders for the Organization of a Force (I.E.F. "D"), para. 13 (a), field ambulances were to be equipped with ambulance transport under the orders of the Director, Medical Services in India. The reason for substituting riding mules for ambulance tongas does not appear to be on record, but it is presumed that it was done with the intention of rendering the field ambulances as mobile as possible. Cavalry field ambulances are not, in accordance with the regulations, allotted wheeled transport, but are provided with riding mules in lieu thereof. With regard to the provision of other wheeled transport, the General Officer Commanding, Force "D," was asked on the 2nd February 1915, whether he would like a motor ambulance. He replied that a motor ambulance would be of great value if fitted up for carrying "sitting up" and "lying down" wounded cases, and was as light as possible. This reply indicated that heavy wheeled transport would not be of much use. On the 20th April 1915, the General Officer Commanding was informed that we could send him another motor ambulance if the one which had already been sent had been of real use. His reply indicated that another motor ambulance was not required. On the 20th October 1915, the General Officer Commanding telegraphed that he could find use for four more motor ambulances. Three were despatched during November and three in December, three others being sent later. The first demand for ambulance tongas was received on the 3rd November 1915 when 20 were demanded. Some doubt existed here as to whether the ordinary ambulance tonga was suitable, and the General Officer Commanding was addressed accordingly. He replied that the ordinary ambulance tongas were required. 20 were supplied.

Correspondence regarding the provision of motor transport.

Telegram P., No. S.-2271, dated 2nd February 1915,

From—The Chief of the General Staff, Delhi.

To—GENERAL BARRETT, Commanding Force "D", Basrah.

As motor transport is being provided for your force, please inform me whether you would also like a motor ambulance.

Telegram P., No. 111-G., dated 2nd February 1915.

From—GENERAL BARRETT, Basrah.

To—The Chief of the General Staff.

Regarding the suggestion made by you in your 2271-S., a motor ambulance would be of great value here if it were fitted for carrying sitting up, and lying down wounded cases, and were as light as possible.

Telegram P., No. S.-4386, dated 2nd March 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D",

A motor ambulance with spares was sent on the 1st in the "Egra". We will send a chaffeur later.

This refers to your 111-G. of February 2nd.

Telegram No. S.-8075, dated 20th April 1915.

Question 3.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

We can send you another Motor Ambulance if that already sent has been of real use to you and a second would be advantageous. This is with reference to my S.-4386, second March.

Telegram No. 226-2-Q., dated 24th April 1915

From—The G. O. C., Force "D", Basrah.

To—The Chief of the General Staff.

Your 8075. Another motor ambulance not required.

Telegram P., No. 165-16-O., dated 20th October 1915.

From—The General Officer Commanding, Force "D", Kut-al-Amarah.

To—The Chief of the General Staff.

Please see my telegram of 15th October, No. 165-14-O.

I request urgently that the two new armoured cars, asked for in the above, may be supplied. Apparently only ordinary axles are being supplied by the Inspector of Machinery and these cannot last, see my telegram of 20th, No. 165-15-O. Indian Princes are, I see giving motor ambulances, could not some be sent to us here? I could find use for four, and also for 2 new lorries. Ordinary standard 40 H. P. machines are too heavy for this country and the 16 20 H. P. Wolseley Colonial Model with lorry body would be better.

Telegram No. S.-26506, dated 6th November 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Kut-al-Amarah.

Your No. 165-8-O. of 3rd November 1915. Please see No. 8689-19 (D. M. S.-3), dated 25th October 1915, a copy of which was forwarded to you on 27th October 1915. 3 motor ambulances are being forwarded and fourth will be supplied later. The date of despatch from Bombay of the 3 ambulances will be communicated later.

Telegram No. 19-48-Q., dated 3rd November 1915.

From—The General Officer Commanding, Force "D" Kut-al-Amarah, through Basrah.

To—The Chief of the General Staff.

Request 20 mule tongas with mules and personnel be sent for field ambulance at once.

Telegram No. S.-26480, dated 6th November 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Kut-al-Amarah.

Your telegram 19-48-Q. of 3rd November. Is the ordinary ambulance tonga referred to or do you require some lighter pattern? If former 20 can be despatched very early, but if latter some delay will ensue. As regards mules and drivers as your ambulances have already been equipped with riding mules please ask Transport Authorities to provide the few draught animals required from those with your Force and take back riding mules *pro rata*. Tongas will be sent as for mule draught.

Question 3.

Telegram No. 19-59-Q., dated 9th November 1915.

From—The General Officer Commanding, Force "D," Kut-al-Amrah, through Basrah.

To—The Chief of the General Staff.

S.-26480 ordinary ambulance tonga is required. Draught mules should be sent from India as none available for this purpose here.

Telegram No. S.-27237, dated 13th November 1915.

From—The Chief of the General Staff, Delhi.

To—The G. O. C. Force "D," Aziziyah.

Your 19-59-A dated 9th November. 20 ambulance tongas with 44 draught mules and necessary personnel are being sent end of this month.

Note on the number of A. T. carts, ambulance tongas and mules available.

1. Number of A. T. carts at Shaiba, April 1915.

631 distributed as follows:— Basrah 311, Makina 192, Shaiba 100, Kurnah 28.

Ambulance tongas *nil*.

Ambulance riding mules 398.

2. Number of A. T. carts at Kurnah, December 1914. Kurnah—10.

Ambulance tongas *nil*.

Ambulance riding mules 400.

3. Number of A. T. carts at Ctesiphon, November 1915.

A. T. carts 659.

Ambulance tongas *nil*.

Ambulance riding mules 83.

4. General Aylmer's operations, January 1916.

A. T. carts 1,093 with force.

Ambulance tongas 2 with force also one motor ambulance.

„ riding mules 79.

5. Present time.

A. T. carts 1,136 with force.

11 ambulance tongas.

6 horse ambulances.

8 motor ambulances.

No ambulance tongas were originally brought with the 6th division.

400 ambulance riding mules, December 1914.

Ambulance tongas received 20 December 1915.

30 January 1916.

240 end of March 1916.

Horse ambulances 60 arrived with the 3rd and 7th divisions in January and February.

30 light ambulances with field ambulances of 13th division.

3 motor ambulances presented by Maharaja of Minapur arrived
December 1915.

4 " " " " Kolapur arrived
January 1916.

1 " " " " Gidhaur arrived
March 1916.

1 " " " " Darjeeling Planters arrived
March 1916.

IV.

Question 4.

Question.—As the campaign was confined at first to places near the Tigris, Euphrates and Karun and as reliance had consequently to be placed on river steamers for transport, did the Military authorities in India consider the expediency of providing special river Hospital steamers and barges? The Commission would like to see any correspondence there may have been on this subject between the military or medical authorities in Mesopotamia and those in India.

Answer.—In June 1915, in connection with speedy evacuation of sick and wounded down the waterways of Mesopotamia, the General Officer Commanding, Force "D," was asked whether he considered that fitted motor ambulance boats if obtainable in sufficient numbers, could take up the functions of the River Hospital Transport "Bengali" had she not sunk. He replied that fitted motor ambulance boats would not, it was thought, be suitable. He stated that for hospital use, native boats could be fitted up under local arrangements. He also stated that small steam tugs, four of which would be needed, would be of considerably greater use. Each of these should be able to tow two native boats of 30 tons each and they should not draw over 3 feet 6 inches when all their equipment was on board. Small steam tugs, as suggested were not available, and the General Officer Commanding was informed accordingly, and was asked with regard to the fitting of country boats to await papers being sent to his Deputy Director, Medical Services, by the Director, Medical Services, India.

Correspondence regarding the provision of river steamers and barges

Telegram No. S. 12391, dated 15th June 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

In connection with the question of speedy evacuation of sick and wounded down the waterways of Mesopotamia, we wish to know if you consider that fitted Motor Ambulance boats, if obtainable in sufficient numbers, could take up the functions that would have been performed by the River Hospital Transport "Bengali" had she not sunk. If so please let us have information on the following points:—

Firstly, what size would be most useful?

Secondly, how many would be required?

Thirdly, should they be specially fitted for Europeans or Indians?

Fourthly, what proportion of lying and sitting accommodation would be desirable?

Fifthly what minimum speed is essential?

Sixthly, maximum draught.

Telegram P., No. 18-89, dated 20th June 1915.

From—The General Officer Commanding, Force "D", Basrah.

To—The Chief of the General Staff.

S.-12391. For the purpose referred to, fitted motor ambulance boats would not, it is thought, be suitable.

For hospital uses native boats can be fitted up under local arrangements and small steam tugs, of which four would be needed, would be of considerably greater use. Each of these should be able to tow two native boats of thirty tons each and they should not draw over 3'6" when all their equipment is on board. Their speed in slack water should be two knots at least.

Telegram No. S.-15353, dated 17th July 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Reference your 18-89, of 20th June. Suitable steam tugs as you suggest are not at present available. In addition to the aerial propeller motor launch referred to in my S.-10964 of 26th May 1915 we have been offered and proposed to send to you for ambulance purposes another motor launch steel hull wooden awnings 40 feet long 10 feet beam drawing 2 feet 3 inches when fully loaded capable of carrying 18 lying down cases plus 16 sitting or 60 if only sitting. A new engine is being fitted which will give 12 knots in slack water. There is also a cabin and lavatory accommodation. Regarding the scheme for fitting country boats and having tugs for them please await papers being forwarded this mail by Director, Medical Services in India to your Deputy Director of Medical Services.

Question.—It has been suggested that Surgeon-General Babbie, D.M.S., Question 5. stipulated at the commencement of the War that all gifts of hospital equipment and comforts from charitable societies, such as St. John Ambulance and the Red Cross Society, should be controlled entirely by the head of the medical services. Is this correct? The Commission would like to see the correspondence on this subject.

Answer.—At the beginning of the War, Surgeon-General Babbie took up the position that the D. M. S., in India functioned on the Council of H. E. the Commander-in-Chief as representative of the Red Cross, and he considered that on that account all Voluntary Aid Associations should work through him. The discussions on this subject were verbal, and the only connected correspondence is placed below.

Correspondence regarding the control of hospital equipment and comforts from charitable societies.

Telegram No. *Nil*, dated 13th October 1914.

From—The Director, Medical Services in India,

To—The Assistant Director, Medical Services, Bombay Brigade.

There appears to be some question as to the putting on board ship of Red Cross Gifts between Rigby and Nelson. Unless there is reason to the contrary, that I do not understand, I think we should take over in bulk from St. John at their shed in the docks—arrange the distribution among the Officers Commanding Medical Units proceeding, handing over to them for their own or for other units at the front or embarking elsewhere, and then arrange shipment with Supply and Transport in the appropriate ships. Can this be arranged? If necessary I will give you a special Warrant Officer to assist Rigby in this.

BOMBAY.

ROYAL BOMBAY YACHT CLUB,

15. 10. 1914.

DEAR GENERAL BABBIE,

The procedure adopted in embarking the Red Cross gifts here is exactly as you order in your telegram, but still I should like a special warrant officer to assist Rigby with them. The boxes are all kept stored in one of the sheds at the docks, and when any General or Stationary Hospital is about to be embarked, I write to Rigby and tell him to put on board a certain number of units, and as far as possible, to hand them over to the Officers Commanding of the medical units themselves so that they can't go wrong. I enclose Rigby's reply to a note I wrote him on the subject.

Yours sincerely,

H. FOOKS.

OFFICE OF THE EMBARKATION COMMANANT,

NO. 3 SHED, ALEXANDRA DOCK,

Bombay, 14th October 1914.

DEAR COLONEL FOOKS,

The only trouble about the Red Cross boxes is that I asked Nelson if he could send some one to the Docks to sort out and hand over to the Supply and Transport boxes to be embarked. He replied he could spare no one. We are up to our eyes here at present with work and it would be an excellent plan if we could have some one to look after the boxes and see about their embarkation.

Yours sincerely,

C. M. RIGBY.

Question 5.

Letter No. 6757-D-32 (D.M.S-3), dated 20th October 1914.

From—The Director, Medical Services in India,

To—The General Officer Commanding, 6th (Poona) Division.

With reference to the attached copies of correspondence I am directed to request that you will be so good as to select and detail an assistant surgeon to perform the duties in question.

Letter No. 8531-8 (D.M.S.-3), dated 30th August 1915.

From—The Director, Medical Services in India,

To—The Deputy Adjutant General, General Headquarters, 3rd Echelon, Indian Section, Indian Expeditionary Force "A," the General Officers Commanding, Indian Expeditionary Force "B," Indian Expeditionary Force "D," Indian Expeditionary Force "E."

I am directed to request that orders may be issued to Officers Commanding Medical Units in ^{I.E.F. "A."} I.E.F. "B." ^{I.E.F. "D."} that all applications for gifts either of money or in kind, from the St. John Ambulance Association, should be forwarded through you and through this Office.

Copy of telegram No. 43542, dated 15th March 1916.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

From date of arrival at Basrah of Colonel Jay Gould, I.M.S. who has been selected to represent the St. John Ambulance Association in Mesopotamia kindly instruct all Officers Commanding, Medical Units, that applications for gifts from this Association should be forwarded direct to him.

This cancels No. 8531-8 (D.M.S. 3),* dated 30th, August 1915 from
Director Medical Services in India.

* *Vide supra.*

VI.

Question :—It has been alleged that the supply of medical stores obtainable only in England has been delayed by the dilatory methods of the Stores Department of the India Office. Is there anything to support this allegation? If so, the Commission would be glad to be furnished with specific instances. Similar information is also wanted in regard to the supply of other articles necessary for the comfort and effective medical treatment of the sick and wounded. *e.g.*, ice machines, and electric fans. Question 6.

Answer :—The supply of medical stores obtainable only in England has been delayed but we are unable, since the departure of Sir W. Grant Burls from the Director-Generalship of Stores some five or six years ago, to support the allegation that this is due to the dilatory methods of the India Office.

The extreme dislocation of most trades and industries during the past two years is enough to account for the delays that now unavoidably occur. Further, it was notorious that the best articles of many descriptions came from the allied enemies and those sources being cut off, a long time must elapse before new industries can be started at home to take the place of the German and Austrian sources of supply.

Synthetic drugs, fine chemicals, bacteriological stains, scientific glassware, microscope coverslips, all glass syringes and so on are a few instances of the difficulties that the India Office must have had to contend with apart from the general disorganization throughout nearly all trades.

Bottles for instance are most difficult to get and their absence is, as can be readily understood, most hampering—but we can hardly blame the India Office.

In addition there is the enormous demand for all medical and surgical articles of equipment etc., for the other fronts of the War which must have very materially affected the market.

Note by Quartermaster General.

1. It is the case that the Director-General of Stores, India Office, is comparatively slow in meeting demands for stores of the kind required for the comfort and effective medical treatment of the sick and wounded, but so far as we are aware at present the sick and wounded have never yet suffered owing to actual delay in his meeting our demands.

2. The relative slowness of the methods of the Director-General of Stores is a potential danger, and it may become an actual one if the rate of consumption of any of the imported supplies of the kinds for which we depend on him is ever largely increased at very short notice; a moderate increase we usually will be able to meet out of our stocks on hand, by local purchase, and by drawing on Egypt. When we demand supplies and medical comforts from the Director-General of Stores we always try to give him four months in which to deliver the things in Bombay.

3. As regards ice machines, it is the case that seven (7) demanded from him on the 6th January 1916 were not shipped in England until the first week in May, but this delay has not, we believe, inconvenienced the force; for we understand that there are in Mesopotamia other ice machines that have not yet been assembled, and, consequently, the machines of the Director General of Stores will probably even now arrive at Basrah before the Military Works Services at that place are ready to deal with them.

Note by the Director General of Military Works

Regarding the supply of electrical plant, there are two main items :—

- (a) plant for 5,000 bed hospitals demanded by cablegram at the end of January, and the majority of which was shipped to arrive at Abadan about April 23rd, and

Question 6.

- (b) plant for 2,000 bed hospitals demanded by cablegram early in March, shipment of which was promised early in May and the end of May.

Considering the nature of the plant required and the conditions in the engineering trade in England at present these deliveries may be considered to be remarkably prompt and there is no support for the allegations of delay as far as we are aware.

Correspondence regarding the supply of medical stores

Statement by the Director Military Works regarding the supply of Medical Stores.

A demand was received on 11th February 1915 for electrical stores for one small hospital for Basrah and on 16th February 1915 a demand was received for electrical stores for two standing camps of British Infantry Battalions. All plant and stores for these three installations were despatched during March and April from Bombay and Karachi in various consignments and on various vessels.

2. Electrical stores for hospitals for 500 beds were demanded on 31st December 1915. Demand was received in Delhi 18th January 1916. Cabled indent for main items was sent to Director General of Stores on 24th January 1916 impressing on him the great urgency and asking for delivery in Basrah not later than the first week in April if possible.

Minor items were bought in India as far as possible and despatched from Bombay on March 9th.

3. Electrical stores for additional hospitals for 2,000 beds were demanded on 21st February 1916 and a cabled indent for the whole demand was sent to Director General of Stores on 4th March 1916.

4. Reminders were sent to the Director General of Stores at intervals both from Simla and from General Officer Commanding Force "D."

The latter asked that all stores should arrive not later than the end of April

5. Intimation has been received from the Director General of Stores that a large portion of the first demand were shipped on the "Kingsmere" which arrived at Abadan on April 23rd; and another cable has been received today that the remainder of both demands were shipped on the—

Freinfels	...	...	Arrived Abadan	May 6th
Rotenfels	...	...	" "	" 31st.
Kurmark	...	...	" "	" 18th.
Diyatalawa	...	...	Left England	" 12th.
Pagenturm	...	...	" "	" 11th.
Chyebassa	...	...	Arrived Karachi	" 18th.
Kashmir	...	...	Arrived Bombay	" 5th.
Syracusa	...	...	" "	April 24th.
Catania	...	...	" "	May 24th.
Rheinfels	...	...	Left England	June 8th.

We have no information as to what stores were on which ships but the Director General of Stores informed us in March that he expected to ship the greater part of the stores for the hospitals for 5,000 beds on the "Kingsmere" and Freienfels.

M. TRENCH,—12-6-16.

In making demands on the Director General of Stores as free a hand as possible was given him as regards patterns of plant to be supplied to that he could take whatever might be available in the market—and considering the state of the market at home for all machinery, etc., the Director General of Stores seems to have been extraordinarily prompt in compliance.

J. DALLAS,—13-6-16.

Addendum to above Statement.

In continuation of my note, dated 10th June 1916, forwarding statements for the information of the Medical Commission regarding materials for hospitals at Basrah, please enter the following in the statement in question—

Against Diary No. 24292.	13 radiators sent on "Braunfels" 18th November 1915.
	2 radiators sent on "Havildar" 28th December 1915.

15

Correspondence referred to in above statement.

Telegram No. 136-G., dated 10th February 1915.

From—The General Officer Commanding, I. E. F. "D", Basrah.

To—The Chief of the General Staff.

Please ask Director General Military Works to instruct Assistant Commanding Royal Engineers, Bombay, who has already successfully supplied similar stores to purchase and send to Basrah as early as possible the fittings and stores for electric lights and fans of Basrah hospital, a list of which is being sent with plans direct to Assistant Commanding Royal Engineers, Bombay, by letter. Please also ask Director General, Military Works, to purchase and send Basrah urgently the following plant for the same hospital two oil engines and dynamos suitable for running in parallel horizontal belt driven electric lighting type engine complete with foundation, bolts, tanks, connections, spare parts, spanners, tools, switchboard, etc., The dynamos to be of twelve and eight kilowatts capacity respectively and shunt wound for two hundred and thirty volts. The engines to be twenty four and sixteen horse power respectively and preferably ordinary type. The switchboards to be arranged for running foregoing sets in parallel and to have instruments and connections for three feeders with ammeter dials to fifty ohms and twenty amperes respectively. Please ask Director General, Military Works, to inform me early regarding approximate size of engine house and foundations for foregoing sets. Also will he kindly acknowledge receipt of this demand.

Telegram No. 110-R. E., dated the 16th February 1915.

From—GENERAL BARRETT, Commanding, Force "D," Basrah,

To—The Chief of the General Staff, Delhi.

I believe that Madras war funds are available for fans and lights for British Troops of this force. I suggest that Director General of Military Works, work out and arrange for very early supply of two sets suitable for lighting and fans of

British Regiment in a Chappared camp of E. P. tents. Provision be made for establishment to run each plant separately. My Divisional Engineer Commander has already made this suggestion letter to Captain Graham A. D. C. to His Excellency the Viceroy at his visit here.

Letter No. 163-26 (M. W.), dated 31st December 1915.

(Received 18th January 1916.)

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

I have the honour to state that owing to the great increase in the Force, it is estimated that extra hospital accommodation for 5,000 beds, beyond that already existing will be required and, as it is imperative that the plants and material for the electrical installations should be ordered at once, in order that they may arrive in time to be erected before the hot weather. I am submitting a copy of a letter from the Officer Commanding, Electrical Section, with lists of plant and stores required for four hospitals of 1000 beds each, and for two of 500 beds each, I request that these may be ordered at the earliest possible date.

2nd Lieutenant Moone's suggestion that the new ice machines ordered should be fitted for electric drive seems well worthy of consideration.

Telegram dated 24th January 1916.

From—The Director General of Military Works.

To—The Director General of Stores, India Office, London.

Please endeavour to obtain from manufacturers stocks for very early delivery following electrical plant urgently required for four large and two small hospitals in Mesopotamia. Arrival Basrah not later than first week April essential earlier if possible. For each of four large hospitals there are required three twentyfive kilowatt continuous current 220 volt dynamos with fifty horse power oil engine vertical semi-diesel type acceptable one switchboard with three generator panels and four feeder panels, latter to carry seventy five amperes each maximum. For each of two small hospitals there are required two similar generating sets and switchboard. Also required fifteen hundred ceiling fans and regulators and ordinary wiring materials detailed list of which will follow by next mail. Presume unlikely you could obtain all sixteen engines and generators of one type but please endeavour supply fewest possible different types and at any rate engines in each hospital of one type only. If exact sizes asked for are unobtainable will accept any size reasonably near. Peak load in large hospitals about fortyfive kilowatts. Please send foundation drawings and general arrangement plans in advance and cable me generally what plant you are getting. All generating sets complete with tanks, belts, starters, accessories, spare parts.

Telegram No. 163-115 E, dated the 21st February 1916.

From The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff, Delhi.

In continuation of my letter dated 31st December No. 163-26-M. W. Owing to increase of force please order following stores at once extra plant electrical stores for 1 Hospital of 1,000 and 2 of 500 beds each.

Telegram dated 4th March 1916.

From—The Director General of Military Works.

To—The Director General of Stores, London.

My cablegram dated January 24th, my cablegram dated January 28th. Please endeavour to obtain and despatch as early as possible generating plant and switchboards for one more large hospital and two more small hospitals same conditions as before. Also following additional electrical stores ceiling fans with regulators 800, table fans 72, watertight fittings 60, shades iron enamelled 1,300, lampholders cordgrip 800, lampholder batten 130, tumbler switches 900, ceiling roses 1,500, round wood blocks 2,200, hard drawn bare copper wire 4 gauge 5½ miles, 8 gauge half mile, 10 gauge one mile. Wire Henley or Kaleeco twin 1-18 gauge 6,600 yards, ditto twin 7-20 gauge 3,300 yards, ditto twin 3-20 gauge 2,200 yards, wire flexible cotton covered 2,000 yards, cable vulcanised India rubber taped and braided 19-16 gauge half mile. Fittings for Henley wiring system boxes, three-way T. T. one 18 gross boxes; four-way T. T. 2 three gross boxes; six way T. T. 2 three gross; connectors three-way 18 gross; one-way 18 gross; two-way three gross; Tee 3 gross; clips link for one twin 1-18 wire 72 gross; for two twin wires 72 gross; for three twin wire 36 gross. French nails one inch, 56 pounds; screws countersunk No. 6¾ inch 30 gross; one inch 15, gross; tape, insulating, black, half-inch 15 pounds; tape rubber 6 pounds; copper binding wire, 12-gauge, 140 pounds; tinned copper binding wire; 26-gauge, 21 pounds; lead fuse wire, 26-gauge, 6 pounds; 20 gauge 3 pounds; heavy workshop flexible wire 550 yards. Metal filament lamps 220 volts 20 watts 600; 30 watts 500; 40 watts 400; 100 watts 60; distribution boxes, double pole fuses, single pole switches, 5 amperes per way, 3-way 60; 6-way 12; wall plugs and sockets 72; adapters lampholders 24; draw tongs two pairs. Stores should be consigned and cost will be born as in indents Waxing and Weakly.

Letter No. S-5160, dated 24th February 1916.

Question 6.

From—The Director General of Stores, India Office, Whitehall, London.

To—The Director General of Military Works.

In continuation of my telegram dated 22nd February 1916, relative to the electrical stores for Military hospitals in Mesopotamia, demanded in your telegrams, dated 24th and 28th January 1916, I have the honour to inform you that oil engines and dynamos as follows have been ordered of the Lancashire Dynamo Company, *viz* :—

3 Parsons six cylinder standard pattern engine for paraffin fuel, starting up on petrol with high tension, ignition each direct coupled to a Lancashire Dynamo having an output of 24 K. W. S. at 220 volts shunt wound.

4 Parsons ditto but having three cylinders and each having an output of 45 B. H. P.; each direct coupled to a Lancashire Dynamo having an output of 25 K. W. S. at 220 volts, shunt wound.

9 Gardner high speed vertical paraffin oil engines, each having an output of 48 B. H. P. at 600 R. P. M., each direct coupled to a Lancashire Dynamo having an output of 25 K. W. S. at 220 volts shunt wound.

170 of the fans demanded are being shipped from Genoa, *via* Bombay, and should have already left the former port. It is hoped to ship the rest of the stores with the exception possibly of a few of the fans either by the S. S. "Kingsmere" sailing March 2nd from Hull, or by the S. S. "Freienfels" sailing March 22nd, from Glasgow. Both these vessels sail direct to Abadan and are due to reach there on 7th and 19th April respectively.

Telegram, dated 10th June 1916.

From—The Director General of Stores,

To—The Director General of Military Works.

Your telegram, dated 7th June 1916 further electrical stores for Basrah hospitals shipped by vessels leaving April and May "Freienfels" (arrived Abadan May 6th), "Rotenfels" (arrived Abadan 31st May), "Kurmark" (arrived Abadan 18th May), "Diyatalawa" (left England 12th May), "Pagenturm" (left England 11th May) to Abadan; and "Chyebassa" (arrived Karachi 18th May), "Kashmir" (arrived Bombay 5th May), "Syracusa" (arrived Bombay 29th April), "Catania" (arrived Bombay 24th May), for Bombay for transmission to Basrah; remainder shipped by "Rheinfels" 8th June, General Officer Commanding, Basrah has been informed by telegraph.

Extract from Bi-monthly return of stores under provision by the Director-General of Stores for India up to 29th February 1916.

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
28-1-16. (97 62).		For Engineer Field Park, Basra		Rs. A. P.	1916.		1916.	
		Generating sets ...	12	9883 0 0	9 Feb.	Lancs. Dynamo, &c., Co. ...	Apr.	Part per Kingmere.
		" sets ...	8				...	
		Ceiling fans ...	100	353 8 9	4 Feb.	Sun Electrical Co. ...	...	100 per Kingmere.
		Fans and regulators ...	580	3806 0 0	4 Feb.	Crompton & Co. ...	Apr.	Part per Kingmere.
		Fans ...	450	2811 5 0	4 Feb.	General Electric Co. ...	Apr.	Part per Kingmere.
		Regulators ...	500				...	
		Fans ...	200	150 0 0	7 Feb.	Berkeley and Young ...	Apr.	
		" ...	170	905 5 0 of Bombay.	10 Feb.	General Electric Co. ...	Apr.	
		Regulators ...	170	Rs. A. P. 102 0 0	10 Feb.	General Electric Co. ...	Apr.	
		Spare parts for each machine (Sets)	16		...	...	...	Steps are being taken for supply.
		" brushes for each dynamo (Sets)	16				May.	
		Oil filters ...	6	15 2 0	27 Mar.	A. C. Wells & Co. ...	...	Shipped per Kingmere.
		Table fans, &c. ...	Various.	421 0 9 (whole order).	2 Feb.	General Electric Co. ...	...
		Hard drawn, bare copper wire (Lbs.)	5,400	Rs. A. P. 353 19 5	2 Feb.	T. Bolton and Sons ...	...	5,400 per Kingmere.
		Cotton, silk braided, twin flexible wire (Yds.)	2,000				Apr	
		Cable, insulated I.R. (Yds.)	1,600	(See item 1.)...	2 Feb.	General Electric Co. ...		
		Henley twin wire (Yds.)	3,000				...	Shipped per Kingmere.
		" link clips (Gross)	50	118 18 6	2 Feb.	W. T. Henley's Telegraph Works Co.		
		Workshop, flexible wire (Mile)	1	(See item 1.)	2 Feb.	General Electric Co. ...	Apr.	
		Wire, twin flexible (Yds.)	660		...		...
		Meggers ...	2	49 2 0	2 Feb.	Evershed and Vignoles	...	2 per Chyebassa.
		Ammeter ...	1				Apr.	
		Voltmeter ...	1	(See item 1.)	8 Feb.	General Electric Co. ...	Apr.	
		Linesman's detectors ...	6	See item 1.)	2 Feb.	General Electric Co. ...	Apr.	

Telegram from D. G. M. W.,
28th January 1916,
Indemnity 31st, dated 4th
February 1916 (97-80).

HISTORY OF SUPPLY OF ICE MACHINES TO MESOPOTAMIA.

Question 6.

HOT WEATHER OF 1915.

6th March 1915.—General Officer Commanding, Force "D", was asked if he could get ice at Mohammerah or at Basrah, or if he required ice machines.

8th March 1915.—General Officer Commanding, Force "D", reported that sufficient ice could be obtained locally, and that ice machines were not required.

14th June 1915.—Demand received for four ice machines each capable of turning out one ton of ice per diem.

26th June 1915.—After inquiries, which elicited the fact that new ice machines of the particular kind required could not be obtained in India, one second hand ice machine capable of making two tons of ice per diem and two small machines were located and ordered to be purchased and sent to Basrah. The first machine was subsequently reported as capable of making 26 cwt. ice daily only, and one of the small machines was found to be useless.

1st July 1915.—An additional second hand two-ton ice machine was ordered to be purchased and despatched to Basrah.

26th July 1915.—The 26 cwt. 2-ton and one of small machines, accompanied by two engineers and five mechanics, were despatched to Basrah. The delay in despatch was due to the need of first dismantling the machines purchased.

HOT WEATHER OF 1916.

19th November 1915.—General Officer Commanding, Force "D", was asked to state the number of ice machines he required for the ensuing hot season. On the same date the Director General of Stores, India Office, was asked if he could obtain small ice machines.

1st December 1915.—The Director General of Stores reported that he could obtain 9 small ice machines.

11th December 1915.—General Officer Commanding, Force "D", reported that no small ice machines were required, but that five machines each capable of turning out two tons of ice daily were wanted.

13th December 1915.—General Officer Commanding, Force "D", asked that his demand for ice machines might be held in abeyance.

22nd December 1915.—General Officer Commanding, Force "D", demanded seven ice machines each capable of making one ton of ice daily; each component not to weigh more than one ton.

24th December 1915.—A draft telegram to the Director General of Stores ordering the machines was sent to the Army Department for approval.

6th January 1916.—The telegram ordering the 7 machines was despatched after the Financial Adviser had concurred in the demand.

19th January 1916.—The Director General of Stores reported that he had placed orders for four one-ton ice machines, to be delivered by the end of February 1916, and that the remaining three machines could not be supplied before the end of March 1916. He also inquired whether oil engines were required and if the ice machines need all be of one make.

21st January 1916.—The Director General of Stores was informed that (i) separate oil engines were required for each machine. (ii) that the ice machines need not all be of one make, and (iii) that, if possible, the machines should be adapted for electric drive.

14th February 1916.—The General Officer Commanding, Force "D," demanded three additional ice machines each turning out one ton of ice daily.

22nd February 1916.—After the Financial Adviser had concurred in the demand, the Director General of Stores was asked to place orders for the three additional machines.

22nd March 1916.—The Director General of Stores was informed of the need for expediting the despatch of the ice machines on order.

22nd March 1916.—One ice machine, turning out one ton of ice daily, was ordered in India. This was intended as a stop gap.

30th March 1916.—The Director General of Stores was again reminded of the urgency of this matter of the supply of ice machines

1st April 1916.—A telegram was received from the Director General of Stores reporting that the ice machines on order were promised for shipment at the rate of one a week commencing with the first week in May 1916, and that they would be shipped to Basrah direct if possible. Thereupon, the matter of the local purchase of a number of ice machines was taken up. The assistance of Mr. Wilcox, the Calcutta Agent to the Liverpool Refrigerating Company, was obtained and, with the approval of the Commander-in-Chief, we entered into a verbal agreement with Mr. Wilcox, whereby he agreed to obtain and to despatch for us, with all possible expedition, certain good ice machines of which he was aware of the existence. Mr. Wilcox came to Simla to settle this business in person and from there he went to the several places where the ice machines lay and arranged for their dismantling, packing and despatch.

5th May 1916.—One plant, making one ton of ice daily, was shipped to Basrah from Bombay.

6th May 1916.—Two ice machines, each making two tons of ice daily, were shipped to Basrah from Karachi.

11th May 1916.—One 6-cwt. ice plant was shipped to Basrah from Bombay.

27th May 1916.—The Director-General of Stores reported that four ice machines were shipped from London on the 15th April and 11th May 1916, and that three more would be shipped early in June. These machines (the first four referred to) were sent direct to Abadan.

1st June 1916.—One ice plant, making $1\frac{1}{4}$ tons daily, was shipped to Basrah from Bombay.

SUMMARY.

Question 6.

The result of the delay in shipment by the Director-General of Stores of the seven ice machines first ordered will be that the force in Mesopotamia will receive a number of ice machines in excess of their requirements as estimated in February 1916.

Further, the Director, Royal Indian Marine, has undertaken to obtain and to despatch to Mesopotamia certain ice machines (probably five in number) of which he is aware of the location. At the present time we can give no information as to the despatch of this particular lot of ice machines.

*Question :—*The Commission would like to know to what extent the Indian Subordinate Medical Service was below establishment in Assistant Surgeons and Sub-Assistant Surgeons on the outbreak of war. They would also like to know what the shortage was on the 1st January 1916.

Answer :—(a) A statement showing to what extent the Indian Subordinate Medical Service was below establishment on the outbreak of the war, and the shortage on the 1st January 1916, is attached :—

Military Assistant Surgeons.

Sanctioned cadre on 4th August 1914	...	728	Excluding 9 appointments sanctioned but not filled.
Number on rolls, 4th August 1914	...	695	
		<hr/>	
Shortage	...	33	
Sanctioned cadre on 1st January 1916	...	728	Excluding 9 appointments sanctioned but not filled.
Number on rolls		709	
		<hr/>	
Shortage	...	19	

Military Sub-Assistant Surgeons.

Sanctioned cadre on 4th August 1914	...	888	Excluding 3 appointments sanctioned but not filled.
Number of rolls, 4th August 1914		873	Including 40 seconded.
		<hr/>	
Shortage,	...	15	
Sanctioned cadre on 1st January 1916	...	888	Excluding 3 appointments sanctioned but not filled.
Number on rolls on 1st January 1916	...	868	Including 34 seconded.
		<hr/>	
Shortage	...	20	

(b) The papers on the subject of the improvement of the conditions of service of the Indian Subordinate Medical Department are placed below :—

Government of India, Army Department.

Medical Department, Subordinates—A.

Proceedings, May 1915, Nos. 69-79.

„ *April 1914, Nos. 201-14.*

„ *December 1914, Nos. 1555-1561.*

„ *March 1912, Nos. 2247-2250.*

„ *September 1910, Nos. 1601-1615.*

VIII.

*Question :—*The Director, Medical Services, in a communication to the Director, Medical Services of Force "D", has stated that one Assistant Surgeon should be reckoned as the equivalent of two Sub-Assistant Surgeons. The Commission would like to know the principle upon which this decision is based.

* * * * *

*Answer :—*It was considered that an Assistant Surgeon, owing to his superior knowledge and training, would prove of greater utility than a Sub-Assistant Surgeon, and that if the one of the former was supplied in lieu of 2 of the latter, it would meet requirements. The supply of 1 Assistant Surgeon in lieu of 2 Sub-Assistant Surgeons was agreed to by the General Officer Commanding, Force "D", in December 1914.

Correspondence regarding the relative value of Assistant and Sub-Assistant Surgeons.

Telegram P., No. 175-A., dated 28th December 1914.

From—GENERAL BARRETT, Basrah, *via* Fao.

To—The Chief of the General Staff, Delhi.

With next reinforcements please send 6 sub-assistant surgeons.

Telegram No. 10261, dated 29th December 1914.

From—The Chief of the General Staff, Delhi.

To—GENERAL BARRETT, Basrah.

Your telegram 175-A. 28th December. No sub-assistant surgeons are available. Would 3 assistant surgeons be useful in lieu.

Telegram No. 185-A., dated 30th December 1914.

From—GENERAL BARRETT, Basrah.

To—The Chief of the General Staff, Delhi.

Your 10261 of 29th ; three assistant surgeons would be useful in lieu.

Telegram P., No. S.-87, dated 2nd January 1915.

From—The Chief of the General Staff, Delhi.

To—GENERAL BARRETT, Basrah.

On January 17th, 3 assistant surgeons will sail for Basrah. This refers to your No. 185-A. of December 30th.

N.B.—The questions originally drafted as IX and X come within the scope of IV.

Question :—It has been stated that the Organization Orders of Indian Expeditionary Force "D" allotted medical units to that Force on a scale which is below that given in War Establishments, India. Is there any justification for this suggestion? If so, why was the normal scale departed from? In particular the Commission would like to know why, when the 6th Division was supplemented by the 12th Division and it was known that the number of sick and wounded in Mesopotamia was considerable, no increase was made in the number of General, Station or Clearing Hospitals in that country.

The Commission would like to see any correspondence that passed between the Deputy Director of Medical Services or Director of Medical Services of Force "D" and the Director of Medical Services in India, or between the General Officer Commanding, Mesopotamia, and the Chief of the General Staff, India, asking for additional medical units or increases in medical personnel.

Answer :—The medical units which accompanied the 6th (Poona) Division represented the authorized complement with the following exceptions :—

- (i) No British Stationary Hospitals were sent. These are authorized for campaigns in India and on its frontier, on the scale of one per post on the lines of communication, and one at the advanced base. This Division was mobilized for service with Indian Expeditionary Force "A", but, owing to the attitude of Turkey, it was diverted to Mesopotamia. No British Stationary Hospitals were despatched with the 3rd (Lahore) and 7th (Meerut) Divisions, which joined Indian Expeditionary Force "A". The reasons for this do not appear to be on record, but it is presumed that it was considered that such units would not be required in connection with the arrangements that would be made in France for the evacuation of British sick and wounded, and that if the provision of British Stationary Hospitals was necessary, they could easily be obtained from home. When Indian Expeditionary Force "A" was despatched, it was proposed to make Marseilles the base for Indian sick and wounded. Hence the provision of Indian Stationary Hospitals. After the diversion of the 6th (Poona) Division to Mesopotamia, no representations regarding the desirability of British Stationary Hospitals were received at Army Headquarters from the General Officer Commanding, Force "D". Presumably, the General Officer Commanding had no need for British Hospitals at posts on his early Lines of Communication.
- (ii) A British General Hospital of 250 beds was sent in lieu of one of 300 beds as authorized³. In the case of the 3rd (Lahore) and 7th (Meerut) Divisions, a British General Hospital of 200 beds, only, was sent⁴ with each Division. It was, no doubt, assumed that British sick and wounded would be evacuated to England, instead of being retained for lengthy periods in General Hospitals in France, and that British General Hospitals of 200 to 250 beds would therefore meet Divisional requirements.
- (iii) An Indian General Hospital of 600 beds was sent in lieu of one of 500 beds.

Additional General, Stationary and Clearing Hospitals were not sent as—

- (i) no demand for such units was received and great difficulty was being experienced in providing sufficient medical personnel, as reinforcements for all the Indian Expeditionary Forces overseas.
- (ii) The accommodation in the existing British General Hospital was increased from 250 to 500 beds.
- (iii) The accommodation in the existing Indian General Hospital was increased from 600 to 1,000 beds.
- (iv) The number of Stationary Hospitals required depended on the length of the Lines of Communication.

On the 29th April 1915, the General Officer Commanding, Force "D", asked for certain personnel required on account of the increase in accommodation in the Indian General Hospital. This personnel was supplied with the exception of 11 Sub-Assistant Surgeons who were not available.

Question 11

On the 23rd May 1915 the General Officer Commanding reported that the British General Hospital had been raised to 500 beds and an increase of personnel was urgently required. He also stated that 5 more Indian Medical Service Officers were urgently needed. With reference to this demand he was asked to specify exactly the personnel required for the British General Hospital. In reply, he stated that 9 Medical Officers, 10 Assistant Surgeons, and certain temporary and menial personnel were required. He was then informed that 5 temporary Lieutenants, Indian Medical Service, who had been engaged in India, would be despatched, and that, as the request for medical officers for the British General Hospital could not be complied with, it was proposed that the reorganized field ambulances be reduced from 6 to 5 medical officers each, and 2 Royal Army Medical Corps Officers would be sent. He was also informed that his further demands would be complied with, if after due consideration it was found possible to do so. In this connection it is mentioned that intimation had been received that the 2 British and 3 Indian Field Ambulances which were sent with the original Force "D" had been reorganized into four combined field ambulances, each consisting of 2 Sections British and 3 Sections Indian Field Ambulance, all under one extra officer as Officer Commanding.

The General Officer Commanding, on the 18th June 1915, represented that he was in great need of more personnel for British and Indian General Hospitals. The personnel required, with the exception of Sub-Assistant Surgeons who were not available, were supplied as quickly as possible, and in addition one section of a British General Hospital (100 beds), and the Bengal Stationary Hospital (200 beds), both complete with personnel, were sent.

Copies of correspondence from the medical authorities, Force "D", asking for additional medical units or increase in personnel are attached.

Notes :—

- ¹Field Service Manual, Medical Services (India), 1915, pages 4, 5, 6, 12, 13, 20, 21, 25, 27, 28, 34, 35, 38, 39, 44, 45, 47 and 50.
- ²Field Service Manual, Medical Services (India), 1915, page 17.
- ³Field Service Manual, Medical Services (India), 1915, page 21.
- ⁴Orders of the organization of a Force (Indian Expeditionary Force "D"), page 21.

Correspondence from the medical authorities, Force "D", asking for additional medical units or increase in personnel.

Telegram No. Q-463, dated 7th March 1915.

From—General BARRETT, Commanding Force "D," Basrah.

To—The Chief of the General Staff, Delhi.

More sweepers urgently required for increase of posts and for sanitary sections.

Kindly send 110 of these not being obtainable locally.

Telegram P., No. 255-G., dated 11th March 1915.

From—GENERAL BARRETT, Commanding Force "D," Basrah.

To—The Chief of the General Staff.

For reasons given below, present sanitary arrangements are insufficient and in addition 1 Deputy Assistant Director, Medical Services, and 1 Sanitary Section are imperative for "D" force.

The recent high floods have added to the difficulties of sanitation.

Work by sanitary detachments is only possible in their own immediate neighbourhood.

The difficulty of sanitary work at the base is increasing.

Telegram P., No S.-5177, dated 12th March 1915.

From—The Chief of the General Staff.

To—GENERAL BARRETT, Commanding Force "D," Basrah.

The 30th Brigade is taking no field Ambulance with it from Egypt.

Are you able to make the necessary provision for this Brigade taking into account No. 106 Combined Field Ambulance which is being despatched to you and the Cavalry Field Ambulance.

Telegram No. 689-A., dated 14th March 1915.

From—GENERAL BARRETT, Commanding Force "D," Basrah.

To—The Chief of the General Staff.

Your 5177-S. of 13th. Field Ambulance for 30th Brigade not required. We can provide satisfactorily for it.

Telegram P., No. S.-7281, dated 10th April 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding Force "D," Basrah.

It is being arranged to send Major Cook Young, I.M.S., in charge of a Sanitary Section, and 50 more sweepers from Bombay to Basrah on 17th instant.

This is with reference to your Q.-34-D., of April 7th.

Telegram No. S. 8093, dated 20th April 1915.

From—The Chief of General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference my No. S.-7281 of 10th April and your No. 677-A. of 13th March. Major Cook Young, I. M. S., 122 followers and equipment of Sanitary Section, also 50 A. B. C., men embarked on "Arankola". The British and Indian combatant personnel required for Sanitary Section must be found from your Force.

Telegram No. 2548, dated 20th April 1915.

From—The Assistant Director of Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

An additional Advanced Depot of Medical Stores fully equipped urgently required.

Telegram No. 478-1-Q., dated 29th April 1915.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

Following personnel urgently required, No. 9 Indian General Hospital Sub-Assistant Surgeons 11, Ward Orderlies 2, hospital storekeeper, first class, 1, Hindu cooks 10, bhisties 17, and bodies 4.

Telegram P., No. S.-11884, dated 9th June 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

The hospital storekeepers who failed to proceed by the "Thongwa" will sail

* * * * * It is regretted that at present no sub-assistant surgeons are available. * * * *

Hindu dhobies, cooks, and bhistis, and ward orderlies, sailed for Basrah from Bombay in the "Thongwa."

This refers to your telegram No. 478-1. Q. dated April 29th.

Question 11.

Telegram No. 5-1-4, dated 23rd May 1915.

From—The Deputy Director, Medical Services, Basrah.

To—The Chief of the General Staff.

British General Hospital raised to 500 beds, increase of personnel urgently required. 5 more Indian Medical Service officers urgently needed.

Telegram No. S.-10870, dated 25th May 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your Deputy Director of Medical Services No. 5-1-4 of 23rd instant. Please specify exactly the personnel required for the British General Hospital.

Telegram No. H.-1-7-26, dated 27th May 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

S.-10870. Personnel required for British General Hospital, Medical Officers 9, Assistant Surgeons 10, civilian writer 1, hospital store-keeper 1, A.B.C. ward servants 41, cooks 8, water carriers 8, ward sweepers 16, Supply and Transport Corps washermen 10.

Telegram P., No. S.-11244, dated 31st May 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

We will despatch 5 I.M.S. temporary Lieutenants who have been engaged in India.

As the request for Medical Officers for the British General Hospital cannot be complied with, I would propose that the establishment of the reorganized Field Ambulances be reduced from 6 to 5 Medical Officers each and I will send 2 officers of the Royal Army Medical Corps. Your further demands will be complied with if after due consideration it is found possible to do so.

The above refers to your D. D. M. S. wire of May 27th, No. H.-1-7-26.

Telegram P., No. 643-I Q., dated 18th June 1915.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

We are in great need of more personnel for British and Indian General Hospitals. In field ambulances we have already reduced the numbers of medical officers. In the "Madras" and "Bankura" eight invalided Medical officers left for India, and this has caused still greater deficiency. In the Indian General Hospital out of an establishment of 40 Sub-Assistant Surgeons, only 12 are now able to do duty. We are also in great need of Assistant Surgeons.

In the British General Hospital, after departure of the wounded and sick on the "Bankura" and "Madras," we still have 321 officers and men; and 1,629 in the Indian General Hospital. We are soon sending in the "Thongwa" some 19 British and about 700 Indian patients out of the above numbers.

At Amarah slight cases of illness are better able to get well than at Basrah, Question 11. and I therefore require for the former place 2 Sections of an Indian General Hospital and 1 Section of a British one. Unless, however, I am given what is required for General Hospitals, I am not in a position to send any sections from Basrah.

A considerable increase in the proportion of sick has occurred, which is due to the very great heat which has prevailed since the first days of June. Latterly, the conditions have been a little more favourable, but in the climate here recovery is much delayed even after only slight indisposition.

I would, therefore, ask that the great need for adding to the Medical personnel here be laid before the Commander-in-Chief, as the staff here are far too small to be able to deal with the work under present circumstances.

Telegram P., No. 643-3-Q., dated 21st June 1915.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

In continuation of my No. 643-I.Q. of 18th June, and with reference to your No. S.-11244 of May 31st. The British General Hospital which contains 500 beds and 330 sick only has one Indian cook fit for duty. I am using British soldiers as a temporary expedient but some of these have no experience in cooking. The supply to the General Hospital of the minimum menial establishment, for which I have already asked, is imperative. The establishment is already gravely insufficient for the needs and is breaking down from ceaseless work in this bad climate. I anticipate a complete breakdown of the General Hospitals unless an early improvement is made in the condition of affairs.

Telegram P., No. S.-13016, dated 23rd June 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

The Bengal Stationary Hospital will sail in the Hospital Ship "Madras" for Basrah on * *. It is equal in accommodation to 2 Sections, Indian General Hospital. As soon as possible, a British General Hospital of 100 beds, with equipment and personnel complete, will be despatched. It is now being prepared. 6 regular officers and 3 temporary Lieutenants of the Indian Medical Service will leave on * * for Basrah in the Hospital Ship "Madras." As soon as they are engaged 2 more temporary Lieutenants, I. M. S., will be sent. With the exception of 7 R. A. M. C. officers, the entire personnel for the British General Hospital requested in your D. D. M. S. No. H.-1-7-26, dated May 27th, will be despatched about June 25th. Please inform me by cable what further personnel for the medical units of your Force will be required now.

This refers to your 643-1-Q. and 643-3-Q., of 18th and 21st June respectively, and is in continuation of my S.-11244, dated 31st May.

Telegram P., No. S.-13195, dated 25th June 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

Bearing in mind that 4 officers of Royal Army Medical Corps will accompany the Section of the British General Hospital which will be sent to you on or before 14th proximo, and that 2 officers of Royal Army Medical Corps are proceeding immediately to Basrah, will you please let us know if your immediate requirements in officers of Royal Army Medical Corps are, or are not, fulfilled. If they are not, give details of appointments please.

Question 11.

Regarding question of reinforcements as a whole for the medical units of the Force under your Command, what percentage of the authorised establishment of your medical units do you consider necessary for a regular monthly reinforcement of menial personnel, as it is proposed to send you, in future, a regular monthly reinforcement based on such percentage?

Meanwhile, I shall send the following personnel of Army Hospital Corps as soon as possible, in addition to personnel referred to in my S.-13016 of 23rd instant.

Cook	...	...	...	...	...	...	1
Ward Sweepers	...	...	...	...	...	...	2
Ward Servants	...	...	...	...	...	...	4
Dhobie	...	...	...	...	...	...	1
Water Carrier	...	...	...	...	...	...	1

Telegram No. H.-1-45, dated 27th June 1915.

From—The Deputy Director, Medical Services, Basrah,

To—The Chief of the General Staff.

Reference your S.-13016 of 23rd June. 25 Sub-Assistant Surgeons are urgently needed. Deficiencies in other personnel will be wired when lists received from divisions and medical units which are somewhat scattered.

Telegram No. S.-7-32, dated 23rd June 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah,

To—The Chief of the General Staff.

Owing to increase of Lines of Communication and sickness 50 more sweepers urgently required for the sanitary section,

Telegram No. S.-16273, dated 27th July 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

I am sending you as soon as possible a voyaging staff of 4 temporary Lieutenants 1. M. S. and 10 Sepoy Ward Orderlies. These will be at your disposal at Basrah for use on Transports carrying sick and wounded to Bombay, and will enable you to avoid depleting your establishment to supply medical staffs for this purpose.

Telegram No. P.-5-213, dated 29th July 1915.

From—The D. D. M. S., Basrah.

To—The Chief of the General Staff.

Your telegram No. S.-16273, dated 27th July. For use on board, in addition please send sweepers 8, bhisties 4, cooks 4.

Telegram No. S.-18785, dated 21st August 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference my S.-15957 and S.-16273 of 23rd and 27th July and your D.D.S.M. 5-213 of 29th July. Following personnel are proceeding with August reinforcements on "Barala." Reinforcements for medical units :—Army Hospi-

tal Corps ward servants 8, cooks 2, dhoby 1, water carriers 2, ward sweepers 4. Army Bearer Corps :—bearers 75, cooks 2, water carriers 3, sweepers 8, pakhal bhishtis 2, washermen 4, hospital storekeepers assistants 2, carpenter 1, packer 1, sikligar 1, tailor 1, bildar 1, hospital storekeeper 1. For duty on transports conveying Indian Convalescents to Bombay :—Temporary Lieutenant J. A. Iswariah, Indian War Orderlies 10, sweepers 8, cooks 4 and bhisties 4. Temporary Lieutenants A.Y. Dabholkar and G. V. Ram Mohan, I.M.S., who have also been posted to your Force for duty on transports conveying Indian Convalescents to Bombay, are proceeding on the "Bankura" and "Varsova", respectively. Information regarding the fourth temporary Lieutenant I.M.S. will follow. 11 Royal Army Medical Corps officers are being sent on hospital ship "Takada" early in September.

Letter No. P.-5-184, dated 18th July 1915.

From—The Deputy Director of Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

With reference to your No. S.-13495, dated 29th June 1915, I have the honour to furnish a statement (*not printed*) showing how the medical personnel of this Force now stands.

Telegram No. S.-13496, dated 29th June 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Your Deputy Director, Medical Services No. H.-1-43, dated 27th June 1915. There are no Sub-Assistant Surgeons available. Your requirements are 134 and you have 87. The deficiency of 47 has been met by giving Assistant Surgeons in lieu at the rate of 1 Assistant Surgeon for 2 Sub-Assistant Surgeons. There are 14 Assistant Surgeons in excess of requirements in Mesopotamia, and and 11 more are *en route*. This is the equivalent of 50 Sub-Assistant Surgeons. In view of this, please reconsider your estimate.

Letter No. 7444-80 (D.M.S.-3) dated 11th August 1915.

From—The Director, Medical Services in India.

To—The General Officer Commanding, Force "D," Basrah.

With reference to letter No. P.-5-184, dated 18th July 1915, from your Deputy Director of Medical Services to the Chief of the General Staff, I am directed to inform you that certain officers of the Royal Army Medical Corps are expected to arrive in India from England during the current month, and that, on their arrival, steps will be taken to make good the deficiency of such officers in your Force.

2. With regard to the Indian Medical Service, I am to state that according to the organization orders of the Force, only 69 officers are authorised. The figure "80," given by your Deputy Director of Medical Services, includes an unauthorised officer for the Adjutant General's office at the Base and 10 additional officers for the Indian General Hospital on account of the number of beds having been increased from 600 to 1,000. This is the first official intimation I have received regarding this increase, and I am to request that an application be submitted to enable me to obtain sanction thereto.

I am to add that the records here show that there are 73 officers of the Indian Medical Service with your Force, whereas the letter under reference shows 68 only.

3. The records here show that, including Assistant Surgeon Dewey, there are 65 Assistant Surgeons with the Force, but the letter quoted above shows 60 only.

4. 101 Sub-Assistant Surgeons are authorised. The number 117 given in the letter under reference includes 16 additional men for the Indian General Hospital on account of the increase mentioned above.

According to the records here, there are 87 Sub-Assistant Surgeons with the Force, but your Deputy Director of Medical Services states there are 70 only.

5. The number of Indian Medical Service officers, Assistant Surgeons and Sub-Assistant Surgeons attached to the Bengal Stationary Hospital and Section "D" No. 2 British General Hospital, has not been taken into account in framing the above remarks.

6. In conclusion, I am to request that you will kindly cause the number of Indian Medical Service officers, Assistant Surgeons and Sub-Assistant Surgeons at present with Indian Expeditionary Force "D," to be verified.

Letter No. P.-5-276, dated 24th August 1915.

From—The Deputy Director of Medical Services, Force "D", Basrah.

To—The Director, Medical Services in India, Simla.

With reference to your No. 7444-80 (D.M.S.-3), dated the 11th August 1915, I have the honour to inform you that the authorised number of I. M. S. officers with Force "D" is estimated to be as follows:—

Staff	...	...	...	...	...	3
One Combined Field Ambulance			...	...	...	3
One Indian Cavalry Field Ambulance			...	...	...	3
Four Combined Field Ambulance (includes 2 C. Os., I.M.S.)					..	14
One Combined Clearing Hospital			...	...	...	3
One Indian Stationary Hospital			...	...	...	4
One Indian General Hospital (1,000 beds)				...	...	24
One X-Ray Section	...	...	...	...	...	1
One Sanitary Section	...	...	...	...	...	1
Adjutant-General's Office at Base (I.S.M.D. acting for I.M.S. officer).						1
Corps units (4 cavalry, 21 infantry, now includes 43rd Erinpura and 9th Berar Infantry).						25
Total						82

Major N. Scott, I.M.S., Civil Surgeon, Basrah, is not counted in any way.

2. The duties of medical officer with the medical record section of the Adjutant General's Office at the Base are being performed by an officer with honorary rank of the I.S.M.D. (Captain R. T. Murphy).

This officer is provided for in the orders for the organization of the Force, *i.e.*, he is shown as an officer, not as an Assistant Surgeon. Presumably he is acting under the terms of Government of India, Army Department letter No. 232-54-1 (A.G.-7), dated 23rd December 1914. In any case, this officer is merely taken into account to arrive at an estimate of deficiencies based on those authorised and those present.

3. The number of I.M.S. officers at present with the Force is 65, out of which 4 are sick, and 3 on convoy duty. The latter figure includes Captain F. Shingleton-Smith, I.M.S., detained at Bombay for treatment when on sick

convoy duty. The deficiency is, therefore, estimated at 17 now, the addition of 5 since my No. P.-5-184, dated 18th July 1915, was submitted, being due to the fact that 4 I.M.S. officers have been invalided and Captain R. E. Wright, I.M.S., transferred to the Hospital Ship "Madras".

4. The number of Assistant Surgeons with the Force is 64 including Section "D", British General Hospital, and the Volunteer Battery recently arrived. Out of these, 3 are sick and 4 are on convoy duty. The authorised number is now estimated at 65. The deficiency, therefore, still stands at one.

5. The number of Sub-Assistant Surgeons with the Force is 69. This number does not take in the Sub-Assistant Surgeon attached to the Jaipur-Bharatpur Imperial Transport Unit who is not counted in Table F. of the organisation orders for Force "D". The authorised number of Sub-Assistant Surgeons is 119, i.e., 101 plus 2 for 43rd Erinpura and 96th Infantry and 10 for increase in No. 9, Indian General Hospital. The total deficiency now stands at 50.

6. The Bengal Stationary Hospital and details *en route* from India have not been taken into account in any of the foregoing figures. The application for sanction to the increase of No. 9, Indian General Hospital from 600 to 1,000 beds is being submitted separately, and the numbers of I. M. S. officers and Sub-Assistant Surgeons above are based on this increase.

7. In conclusion, I would ask that if there is any further doubt regarding the numbers of I.M.S. officers, Assistant Surgeons and Sub-Assistant Surgeons, serving with this Force, a detailed statement showing the authorised allotment of each and the names of those understood to be present may be sent. It is to be borne in mind that the total numbers of each are constantly changing.

Letter No. 7444-147 (D.M.S.-3), dated 19th October 1915.

From—The Director of Medical Services in India.

To—The D. D. M. S., Force "D."

With reference to your No. P.-5-276, dated 24th August 1915, I have the honour to inform you that steps are being taken to make good the deficiency of Indian Medical Service officers in Indian Expeditionary Force "D".

2. With regard to Assistant Surgeons I would mention that according to data available in this office, 67 of these Medical Subordinates are at present serving with Force "D" and not 64 as stated in paragraph 4 of your communication under reference.

3. According to the returns in this office 71 Sub-Assistant Surgeons are serving with Indian Expeditionary Force "D," instead of 69 as stated by you. 12 Sub-Assistant Surgeons will be despatched to Basrah at the first public opportunity, and dressers will be sent as they become available. In this connection kindly see my No. 7231-164 (D.M.S.-3), dated 13th October 1915.

4. The attached nominal rolls (*not printed*) of Assistant Surgeons and Sub-Assistant Surgeons serving with Indian Expeditionary Force "D" (which have been compiled from the returns in this office) are forwarded for favour of check and return.

Telegram No. P.-4-241, dated 9th August 1915.

From—The D. D. M. S., Force "D," Basrah,

To—The Chief of the General Staff.

Following additional personnel required for Indian General Hospital. Cooks five Hindu, five Mohamedan leakhali? carriers five, hired bearers twenty, hospital storekeepers' assistants, second grade, thirteen, washermen five, tailors eight, sweepers two, bildars ten, hospital havildars four, ward orderlies twenty-five.

Telegram No. S.-21181, dated 13th September 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

The following medical personnel are proceeding to Force "D" on the Hired Transports "Bankura," "Bandra" and Hospital Ship "Loyalty", respectively :—

"Bankura"—Captains A. L. Stevenson and L. Murphy, R. A. M. C., 8 ward servants, 2 cooks, 1 dhobi, 2 water carriers and 4 ward sweepers, Army Hospital Corps ; 56 Bearers, Army Bearer Corps ; 13 cooks, 7 pakhalis, 14 hospital storekeepers assistants, 9 washermen, 10 sweepers, 9 tailors, 11 bildars, 3 water carriers, 1 carpenter, 1 packer, 1 sikligar, 2 hospital storekeepers, 1 writer. "Bandra"—Captain J. E. Eilcome, R.A.M.C., 4 packstore havildars and 23 Indian Ward Orderlies. "Loyalty" R. A. M. C. Officers Captain W. L. E. Fretz, H. F.G. Wells, R. K. Mallam and E. A. Strachan. Temporary Captain H. S. Keith, Lieutenant C. H. T. Lea, Special Reserve, Temporary Lieutenants A. Brown and S. A. McSwiney. Also Captain Dunbar to replace Major Whitehead, R.A.M.C., Lieutenant O'Donoghue, I. S. M. D., is returning to Force "D" on this vessel. The above includes a six per cent. reinforcement of medical personnel, the personnel required for the Indian General Hospital *vide* your D.D.M.S. P.-4241 of 9th August and the 11 R.A.M.C. Officers promised in my S.-18785 of 21st August.

Letter No. O.-4-100, dated 27th August 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah.

To—The Director, Medical Services in India.

* * * * *

2. Our greatest need at the present time is Sub-Assistant Surgeons, especially at the General Hospital. Senior students from the Medical Schools in India would be most useful in this capacity. Six months' service in the General Hospital or with a Field Ambulance might be counted towards this period of study before being qualified.

* * * * *

Telegram No. O.-9-22, dated 8th September 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

20 trained nursing orderlies required for General Hospital British Troops at Basrah.

Telegram No. N.-1-5, dated 8th September 1915.

From—The Deputy Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

Please send four nursing sisters for duty with General Hospital British Troops.

Telegram No. S.-21706, dated 18th September 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Amarah.

Reference your Deputy Director of Medical Services O.-9-22 of 8th September. It is regretted that 20 British Nursing Orderlies required for British

General Hospital cannot be supplied from India. They should therefore be Question 11. provided from Force under your command.

Telegram No. S.-21427, dated 15th September 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Amarah.

Reference telegram No. N.-1-5, dated 8th September 1915, from your Deputy Director of Medical Services. Please wire whether accommodation for the four nursing sisters asked for is available.

Telegram No. N.-1-8, dated 16th September 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Your S.-21427 of 15th full details regarding accommodation for nursing sisters, contained in my letter No. N.-1-6 of 11th which should reach within 2 or 3 days now.

Letter No. N.-1-6, dated 11th September 1915.

From—The Deputy Director, Medical Services, Indian Expeditionary Force "D", Basrah.

To—The Chief of the General Staff, Simla.

With reference to my telegram No. N.-1-5, dated 8th September 1915, I have the honour to state that the Army Commander has sanctioned four Nursing Sisters being sent to Basrah for duty with the British General Hospital.

A site will have to be acquired and a house built for their accommodation, but they can be temporarily housed if they arrive before their house is built.

It is requested that at least one of the sisters will be "theatre nurse".

Telegram No. S.-23782, dated 9th October 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", General Headquarters (through Basrah).

Reference correspondence ending with your D. D. M. S. No. N.-1-6 of 11th September. Senior Nursing Sister Miss A. M. Harris and Nursing Sisters Miss E. O. Marshall, P. Exshaw and E. Haines, Q.A.M.N.S. for India, are proceeding to Force "D" by mail steamer. The first three ladies sail from Bombay, and Miss Haines from Karachi.

Telegram No. O.-9-27, dated 9th November 1915.

From—The Deputy Director, Medical Services, Force "D", Kut-al Amarah (through Basrah).

To—The Chief of the General Staff, Delhi.

S.-26175. Please send 6 lady nurses and 50 St. John Ambulance orderlies for British General Hospital. Nursing orderlies from Force cannot be spared, reference your S.-21706, 18th September.

Telegram No. S.-29135, dated 1st December 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", General Headquarters (through Basrah).

Reference your D.D.M.S. O.-9-27 of 9th November.

Question 11.

The following Nursing, Sisters Q A.M N S. for India, are proceeding on "Takada":—Miss F. A. L. Smith, Miss E. M. Skinner, Miss P. Mactavish and Miss K. Hunter, whilst Lady Superintendent Miss C. L. Cusins and Nursing Sister Miss E. Green, Q. A. M. N. S. for India, will follow shortly.

Telegram No S-31506, dated 21st December 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Reference my S-29135 of 1st December. Lady Superintendent Miss Cusins and Nursing Sister Miss G. Green, Q. A. M. N. S. for India, are proceeding on the "Varela".

Telegram No 40-1-S., dated 9th December 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Owing to the large increase in the Force and to ensure efficient sanitation in the river boats 200 more sweepers are urgently required.

Telegram No. S-32266, dated 27th December 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

The following medical personnel is proceeding on "Bankura":—7 ward servants, 1 cook, 1 dhobi, 2 water carriers and 4 ward sweepers, Army Hospital Corps; 76 bearers, Army Bearer Corps; 1 Muhammadan cook, 2 Hindu cooks, 1 Muhammadan water carrier, 3 Hindu water carriers, 79 sweepers, 3 pakhali bhistis, 7 washermen, 2 hospital storekeepers, 2 hospital storekeepers' assistants, 1 hospital writer, 1 carpenter, 1 packer, 1 sikligar, 1 tailor and 1 bildar.

The above includes 71 of the sweepers asked for in your D.D.M.S.-40-1-S. of 9th December, the balance of which will be sent at the first public opportunity.

Telegram No. 36180, dated 26th January 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Your D.D.M.S.-40-1-S., dated 9th December, and continuation of my S.-32266, dated 27th December.

96 sweepers are proceeding on Hired Transport "Ellenga."

Telegram No. 37107, dated 2nd February 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Your D.D.M.S -40-1-S., dated 9th December and continuation my S.-32266 of 27th December and 36180 of 26th January.

30 sweepers were despatched on 27th January from Karachi.

This makes a total of 197.

Telegram No. P.-5-510, dated 12th January 1916.

From—The Director of Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Please send as soon as possible 15 pakhali bhistis and 15 for No. 10 Indian General Hospital from France.

Telegram No. 40903, dated 27th February 1916.

From—The Chief of the General Staff.

To—The Director, Medical Services, Force "D", Basrah.

Your P.-5-510, dated 12th January.

14 pakhali bhistis and 15 bhistis are proceeding on H. T. "Ellenga". 1 pakhali bhisti arrived too late for embarkation and will proceed at first public opportunity.

Captain S. S. Dykes, R.A.M.C., is also proceeding on "Ellenga" in relief of Captain F. T. Simpson, R.A.M.C.

Telegram No. 36470, dated 28th January 1916.

From—the Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

My. S.-31837, dated 23rd December.

50 Royal Army Medical Corps nursing orderlies are proceeding on Hospital Ship "Varela".

Telegram No. 34123, dated 11th January 1916.

From—The Chief of the General Staff, Delhi.

To—The General Officer Commanding, Force "D", Basrah.

Reference my 33400 of 5th January.

50 European and Anglo-Indian trained men of St. John Ambulance Brigade are proceeding on Hired Transport "Islanda".

Letter No. H.-5-150, dated 28th January 1916.

From—The Director, Medical Services, Force "D".

To—The Director, Medical Services in India.

(Through the Chief of the General Staff.)

I have the honour to inform you that, basing my estimate on the average of the 5 months, June to October, and taking into consideration that the Force will probably be in more healthy surroundings this year, I have calculated that there will be 7,000 patients in hospital daily in Mesopotamia—

British	...	...	...	...	...	1,800
Indian	...	...	...	...	...	5,200
						<hr/> 7,000 <hr/>

The equipment of the General Hospitals of the Force is—

British	...	...	...	...	...	1,000 beds.
Indian	...	...	...	...	...	2,400 beds.
						(including Bengal Stationary)

Question 11.

Therefore the equipment that is still required is—

British	...	...	...	...	...	800 beds.
Indian	...	...	...	...	...	2,800 beds.

I have asked the D. D. of S. and T., Military Works, and Ordnance Services to obtain the full equipment for 800 beds, British, and 2,800 beds, Indian.

Will you kindly obtain the full medical equipment and personnel for—

8 Sections of a British General Hospital.

28 Sections of an Indian General Hospital.

Accommodation is being prepared in—

Basrah—

British	...	...	...	...	...	800
Indian	...	...	...	...	...	2,000

Amarah—

British	...	...	...	...	...	1,800
Indian	...	...	...	...	...	3,200

 7,800

Kindly have the equipment addressed direct as follows:—

Basrah—

British	...	...	...	...	...	2 sections.
Indian	...	...	...	...	...	7 "

Amarah—

British	...	...	...	...	...	6 sections.
Indian	...	...	...	...	...	21 "

Telegram No. 1307-1-Q., dated 5th February 1916.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

Past experience here has shown it is extremely necessary to form General (? Medical Store Depot) for 3 Divisions at Basrah. Storage accommodation prepared and ready.

Please despatch as soon as possible.

Telegram No. S.-7-70, dated 16th February 1916.

From—The Director, Medical Services, Force "D," Basrah,

To—The Chief of the General Staff.

Please send another Sanitary Section complete for duty in Mesopotamia.

Telegram P., No. 39544, dated 18th February 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your 1307-1-Q. of 5th February.

We are organising and mobilising as quickly as possible a General Medical Store Dépôt. To organise this dépôt on a 3-division basis is considered inadequate. Will the accommodation, which you refer to as being ready, be sufficient to receive a Dépôt on a 5-division basis?

Lieutenant-Colonel Jay Gould, I.M.S., who will also act as Red Cross Agent in Mesopotamia of the St. John Ambulance Association, will command the dépôt.

Telegram No. M.-9-13, dated 23rd February 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

Your telegram, 18th February, 39544.

Accommodation for General Medical Store Dépôt is available.

Letter No. N.-1-55, dated 2nd February 1916.

From—The Director, Medical Services, Indian Expeditionary Force "D".

To—The Chief of the General Staff.

In forwarding the attached correspondence, I have the honour to recommend that 2 Nursing Sisters be attached to each Indian General Hospital of 500 beds, for "theatre" work.

Telegram No. 39673, dated 19th February 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your D.M.S. N.-1-55 of 2nd February.

Please wire whether you can make suitable messing arrangements and provide suitable accommodation for the nursing sisters you recommend should be attached to Indian General Hospitals.

They will not belong to the Queen Alexandra's Military Nursing Service for India.

They will be India trained nurses thoroughly competent for theatre work.

Telegram No. P.-5-701, dated 26th February 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

Has been represented that dressers do not supply the want of sub-assistant surgeons. Can you send more medical officers and assistant surgeons for duty with regiment and medical units in the field?

Telegram No. 41253, dated 29th February 1916.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

Reference your D. M. S., P.-5-701, dated 26th February 1916.

To make up for the inefficiency of dressers, to which you allude, for duty with regiments and medical units, how many of the following do you require:

Question 111

Firstly, R. A. M. C. officers ; secondly, I. M. S. officers ; thirdly, Assistant Surgeons.

Telegram No. P.-5-740, dated 15th March 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

Reference your telegram No. 41253, dated 29th February.

20 (Assistant Surgeons ?) required to meet shortcomings of dressers.

Telegram P., No. 40897, dated 27th February 1916

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

My 39544, dated 18th February 1916.

Following is put forward as a suggestion:—No. 8 Advanced Depôt of Medical Stores now at Basrah to arrange for the accommodation and reception of the General Medical Store Depôt in anticipation of its arrival ; also the former should form the nucleus for collecting the stores of the latter. As the equipment of the General Medical Store Depôt becomes available, it will be forwarded, thus immediately increasing the utility of No. 8 Advanced Depôt of Medical Stores.

In view of the foregoing, Lieutenant Colonel Jay Gould, I.M.S., will be instructed to despatch to Basrah without delay such staff as he considers will be necessary to take charge of No. 8 Advanced Depôt of Medical Stores, and also 1 of the 2 I. M. S. officers now serving under him. No. 8 Advanced Depôt of Medical Stores will be relieved automatically on the arrival at Basrah of the whole of the General Medical Store Depôt. The former will be disposed of by you on its relief.

Are you in agreement with this ?

Telegram No. M.-9-20, dated 1st March 1916.

From—The Director, Medical Services, Force "D," Basrah,

To—The Chief of the General Staff.

Your telegram, February 27th, 40897, agrees with arrangements already made. Please send officer and staff as soon as possible.

Telegram No. 43121, dated 12th March 1916.

From—The Chief of the General Staff,

To—The Director, Medical Services, Force "D," Basrah.

Your M.-9-20, dated 1st March.

Following personnel, No. 1 General Medical Store Depot, are proceeding on mail steamer "Lhassa": I. M. S. officer 1, assistant surgeons 4, clerks 2, compounders 3, and followers 44.

Telegram No. 44984, dated 23rd March 1916.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D," Basrah.

Accommodation for 50 extra lady nurses must be provided as soon as pos-

sible. These lady nurses are in addition to those already in Mesopotamia and to the 27 *en route* for No. 23 British Stationary Hospital. Question 11.

Please inform me when this accommodation can be got ready so that the War Office may know when the nurses should be despatched.

Letter No. H.-5-191, dated 4th March 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

I have the honour to state that in my opinion, for the efficient working of an Indian General Hospital, a self-contained unit of 6 sections with Commanding Officer and Staff complete is essential.

In each unit, in addition to the usual personnel :

50 A. B. C. men are required for stretcher work,

2 nurses for the Operating Theatre.

I have already asked for 2 nurses per 500 beds, *vide* my No. N. 1.-55, dated 2nd February 1916, this, therefore, should now read 2 per 600 beds.

The 2 new Indian General Hospitals that have recently come from overseas consist of 6 sections each.

I now estimate that Indian General Hospitals in Mesopotamia will be required for 6,000 beds which means 10 complete units. In this connection please see my No. H.-5-150, dated 28th January 1916.

With regard to X-ray apparatus, there are now 6 in Mesopotamia: 2 with British General Hospitals, 3 with Indian General Hospitals, and 1 with the Bengal Stationary Hospital. These ought to be sufficient.

A reliable senior officer is required to act as Officer Commanding of each complete unit.

The 2 units from overseas have Officers Commanding, there are besides 10 sections in Mesopotamia, which, with your concurrence, I propose to form into 1 complete unit of 600 beds and 1 unit of 400 beds which will be increased to 600 on the receipt of more sections. Officer Commanding will be required for both these units and for any subsequent group of 6 sections.

Telegram No. 1-6-8, dated 4th March 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

To increase establishment of infectious disease hospital following is required for British : R.A.M.C., officers 2, assistant surgeons 2, nursing orderlies 16, ward servants 15, bhists 5, cooks 3, sweepers 8; for Indian : I.M.S., officer 1, Subordinate Medical Department 2, bhists 5, cooks 4, sweepers 8, ward orderlies 5.

Please telegraph when may be expected.

Telegram No. 45173, dated 24th March 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Your D.M.S. 5-191 dated 4th March.

The supply of standard pattern bedsteads for Indian General Hospitals under supply is exhausted and much delay in their provision is inevitable. What are your local resources in bedsteads or suitable charpoys ?

What is the total number of bedsteads now in General Hospitals in Mesopotamia ?

Question 11.

Telegram No. 45707, dated 27th March 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your D. M. S. No. 1-6-8, dated 4th March.

Captains Blaikie and Weston, R. A. M. C., and Assistant Surgeon Deatker sailed 25th for Basrah.

Your D. M. S. No. R.-9-51 of 10th. Assistant Surgeon Edge sailed 25th for Basrah.

Your D. M. S. No. R.-9-52 of 11th. Captain Inglis, R. A. M. C., sailed 25th for Basrah.

Telegram No. 42191, dated 6th March 1916.

From—The Chief of the General Staff.

To—The Director, Medical Services, Force "D", Basrah.

Please reply to my 39673, dated 19th February, regarding nursing sisters for Indian General Hospitals.

Telegram No. N.-1-85, dated 7th March 1916

From—The Director, Medical Services, Force "D", Basrah

To—The Chief of the General Staff.

Your telegram No. 30673 (?39678) of 19th February.

Suitable accommodation can be made for 6 nursing sisters for General Hospital, Native troops. Please send these to begin with.

Telegram No. 42165, dated 6th March 1916.

From—The Chief of the General Staff.

To—The Director, Medical Services, Force "D", Basrah.

Does the arrival in Mesopotamia of No. 32 British General Hospital modify your requirements in British General Hospital detailed in your H.-5-150, dated 28th January 1916. If so, what are your requirements now?

Telegram No. H.-5-194, dated 7th March 1916.

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

Your telegram No. 42165, dated 6th March.

There are no modifications in previous requirements.

Present estimate is for 3,000 British, 6,000 Indians in General Hospitals.

Writing.

Memo. No. H.-5-202, dated 10th March 1916.

From—The Director, Medical Services, Force "D," Basrah,

To—The Chief of the General Staff.

I have the honour to forward the attached copy of a letter No. H.-5-182, dated 17th February 1916, to the Brigadier General, Royal Engineers, I.E.F

"D," in continuation of my telegram No. H.-5-194, dated the 17th March *Question 11*, 1916.

It will be seen from this that my estimate of requirements for general hospitals in Mesopotamia is now for British 3,000 beds, Indian 6,000 beds; total 9,000 beds.

When the British General Hospitals with the 13th Division (1,040 beds arrive, I shall have in the country—

British	...	...	...	...	2,040 beds.
Add for officers	...	...	...	...	60 „
					<hr/>
					2,100

I have asked for 8 sections of a British General Hospital, *vide* my No. H.-5-150, dated 28th January 1916, to the address of the Director, Medical Services in India, and when these arrive, my total in the country will be 2,900 beds.

For Indian troops—

I have	...	...	...	2,400 beds, including the Bengal Stationary Hospital.
and have asked for	...	...	...	2,800 beds, <i>vide</i> my No. H.-4-150 quoted above.
giving a total of	...	...	...	5,200 beds.

I am informed that with extra bedding and beds locally acquired during the past year, the deficit of British 100, Indian 800 on my estimated requirements will be fully met, and for this reason I have not asked for any increase on my previous estimate of 28th January.

Owing to proper buildings for general hospitals not yet existing, I am making use of temporary accommodation such as the Customs House, Ashar, huts at Makina, etc., all in Basrah, and in houses and tents at Amarah.

It would be advisable to send some of the British and Indian sections as soon as possible to Mesopotamia to be assimilated into existing general hospitals.

In a similar manner to making Indian General Hospitals self-contained units of 600 beds, *vide* my No. H.-5-191, dated 4th March 1916, I propose making the British General Hospitals self-contained units of 500 beds.

I shall thus have 6 British General Hospitals for the 3,000 beds required.

Telegram No. 45609, dated 27th March 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your H.-5-191, dated 4th March 1916. We are getting ready the equipment of 2 British and 6 Indian General Hospitals of 500 beds each, which will be despatched when collected. The S. and T. stores of 8 sections British and 28 sections Indian are being despatched and will shortly arrive in Basrah, addressed to your D. D., S. and T. The balance of S. and T. equipment for 2 sections British and 2 Indian will be sent as soon as possible. Other points raised in your above quoted letter will be answered in another communication.

Telegram No. 47083, dated 5th April 1916.

From—The Chief of the General Staff, Simla,

To—The General Officer Commanding, Force "D," Basrah.

Reference your H.-5-191, dated 4th March 1916. Am I to understand that you do not wish any further sets of X-ray equipment with the additional

C80AD

Question 11. two British and six Indian General Hospitals now under supply and that those equipments enumerated in your letter under reference as now in Mesopotamia are and will be sufficient for your requirements.

Telegram No. X.-1-125, dated 7th April 1916.

From—The D. M. S., Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Your telegram 47083, dated 5th April.

Please supply one set of X-Ray equipment with British and one with Indian General Hospitals now being sent. Will again ask if more sets are required.

Telegram No. 48021, dated 11th April 1916.

From—The Chief the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Your D. M. S. X-1-125, dated 7th April. Steps are being taken to send 2 sets of X-Ray apparatus with the 6 Indian General Hospitals now under supply.

Teleram No. 48231, dated 12th April 1916.

From—The Chief of the General Staff, Simla.

To—The G O. C., Force "D," Basrah.

Your D. M. S. S.-7-70, dated 16th February 1916 (*Dy. No. 39207*). The Sanitary Section is proceeding in "Chakdara."

Telegram P., No. 48244, dated 12th April 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Reference your D. M. S., H.-5-202, dated 10th March and your 69-75-E.C., dated 10th April 1916.

According to your statements, 3,000 beds are your requirements in British General Hospital accommodation.

You have now 2,040 beds owing to the arrival of 32 General Hospital and another General Hospital of 1,040 beds has been promised by War Office.

Will the above General Hospital accommodation meet all your requirement for British Troops?

Telegram P., No. H.-5-277, dated the 14th April 1916.

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Reference your 48244 of 12th. Estimates requirements will be met with addition as stated by you.

*Question :—*The Commission would be glad to know whether the expediency of establishing a depôt of medical stores at Basrah was ever considered in 1915, and if so, the reasons for not carrying out the measure. Also whether the inconvenience and delay resulting from a system of indenting on Bombay for medical stores was brought to the notice of the medical authorities in India.

The Commission would also like to see the correspondence relating to an increase in the staff and equipment of the Advanced Depot Medical Stores at Basrah and to know whether it is true that indents from Mesopotamia for surgical or medical equipment have been cut down by the authorities in India. If so, detailed information is required.

*Answer :—*It is understood that an Advanced Depot of Medical Stores has been located at Basrah since the force arrived there. In July 1915 the Deputy Director of Medical Service represented that in view of the large amount of drugs consumed by the Force it would be advisable to increase the stock of medicines maintained by No. 8 Advanced Depot of Medical Stores at Basrah, and this would necessitate an increase of the personnel. He suggested that the personnel be doubled and a writer added, and stated that both No. 8 at Basrah, and No. 9 at Amarah, were indenting direct on Bombay for their requirements. His attention was drawn to a previous communication which had been despatched to him pointing out that it would be more satisfactory, if, in future, smaller and more frequent indents were made, based on the actual expenditure. He was also informed that that if an increase in stock was essential and was ultimately sanctioned, revised proposals for increased establishment should be submitted if experience showed them to be absolutely necessary.

No representations were received in the Medical Branch at Army Headquarters regarding any inconvenience and delay resulting from the system of indenting on Bombay for medical stores. The correspondence regarding the increase in the staff and equipment of the Advanced Depot of Medical Stores at Basrah is placed below.

In one instance only was an indent cut down by the authorities in the Medical Branch at Army Headquarters. This indent had been received by the Medical Storekeeper to Government, Bombay, in July 1915, and as the demands contained therein appeared to be inordinate, he forwarded it to Simla for instructions. The Deputy Director of Medical Service, Force "D" was informed of the modifications that were made, and that what appeared to be inordinate demands in a single indent were likely to lead to very considerable delay, and that it would be more satisfactory, in future, if smaller and more frequent indents were made based on the actual expenditure. His reply revealed the fact that, for political reasons, the civil population in Mesopotamia was also being treated.

The Deputy Director of Medical Service was then informed that every endeavour would be made to meet demands required for the forces in the field. It was also stated that the reserve of medical stores in India had already been largely drawn upon and that the receipt of supplies from England was uncertain. Large indents such as submitted might therefore render difficult the supply of medical stores for the Army and it was essential that this supply should be given the first consideration. The requirements of the civil population therefore, should not be estimated for in such indents. A copy of the correspondence is placed below.

Correspondence regarding on increase in the staff and equipment of the Advanced Depot Medical Stores, Basrah, and curtailment of indents.

No. 7447 15 (D. M. S.-3), dated 3rd August 1915.

Letter from—The Director of Medical Services in India,

To—The Deputy Director of Medical Services, Force "D".

I have the honour to inform you that it has been brought to my notice and

Question 12. in an indent received from Indian Expeditionary Force "D" by the Medical Storekeeper to Government, Bombay, the following items appear:—

	Grs.
(1) Tablets Acidum boricum, 5 grs.	50,000
(2) Tablets Hydrargyri subchloridum, 1 gr.	42,000
(3) Tablets, Iron, Quinine and Arsenic Co, 3½ grs.	86,000
(4) Tablets Phenacetinum cum. caffeina, 5 grs.	80,000
(5) Tablets sodii Salicylas, 5 grs	80,000
(6) Tablets Potassii bromidum, 10 grs.	5,000
(7) Tablets Pulvis ipecacuanhae, 5 grs.	5,000

2. The Medical Storekeeper is being instructed that in complying with the indent, the quantities shown against items (1) to (5) should be reduced by one-half and item (6) by one-third.

3. In this connection, I would point out that what appear to be inordinate demands on a single indent are likely to lead to very considerable delay, and that it would be more satisfactory in future, if smaller and more frequent indents are made, based on the actual expenditure.

No. S.-14-130, dated 17th August 1915.

Letter from—The Deputy Director of Medical Services, Force "D", General Headquarters,

To—The Director of Medical Services in India.

1. With reference to your letter No. 7447-15 dated the 3rd August 1915, I have the honour to point out that it is not stated, what unit indented for the stores mentioned. Some of the items are the same in quantity as were indented for by No. 8, Advanced Medical Store Depôt. I will deal with this unit alone.

2. First, the stores have always been asked for periodically and not monthly they were controlled absolutely by the expenditure of drugs used by the Force and depended on the prevalence of the disease calling for the use of any particular drug.

3. If a monthly supply had been arranged for, it is possible that a great accumulation may have occurred of some drug not in demand that particular month. Only drugs such as Chlorate of Potash and Hydrochloric acid, which are used in the purification of water and the monthly supply of which can be roughly estimated, are sent on a constant monthly supply indent.

4. The indents from all field units are being rigidly scrutinised and the Advanced Depôt at Basrah has orders to bring to notice and cut down any excessive indent. This is being done freely.

5. Taking the drugs individually, No. 1 is about the only mild antiseptic that can be used for eye cases, and with the dust here and the very great prevalence, amongst the civil, of eye cases, Boric acid is freely used; and remembering that it has to be in a strength of at least gr. 10 to every oz. it will become apparent that to ask for about 30 lbs. in a portable form is a modest requirement.

6. No. 2.—Calomel is used in large doses for fever cases with constipation; and, at the beginning of malaria, in head cases and such like; and, in smaller doses for intestinal cases of many kinds, it is very much in demand.

7. No. 3 is practically the only tonic we have in the panniers and it is only necessary to bear in mind the hundreds, nay thousands of cases of debility from all causes and especially from malaria, to realise the demand for these tablets.

I would further bring to your notice that every such case requires continuous treatment for days and weeks and that a tablet or two is not sufficient for a cure.

8. No. (4) and (5) are practically the only antipyretics and diaphoretics we have and I need not labour the point that we have malaria in hundreds in the hospitals and in hundreds outside who receive occasional doses of these drugs when fever is coming on; and as we run short of one drug the other has to be substituted. Nos. 6 and 7 are smaller amounts and used for prevalent illnesses due to sleeplessness or from debility, etc., and dysentery, etc. No. 8, Advanced Depôt reports that at the present moment there is none of No. 5 in stock, practically ~~nil~~ of 2 and 7 and only small amounts of 1 and 3, and what remains of 4 and 6 are being rapidly used up.

9. In addition to demands by the Military, for political reasons the civil population is also being treated.

10. It is requested that all my indents be met with in full and as soon as possible as in several instances we have been unable to supply drugs which though indented for have not been promptly sent here to Basrah.

Letter No. 7447-21 (D. M. S.-3), dated 28th September 1915.

From—The Director of Medical Services in India.

To—The General Officer Commanding, Force "D," Basrah.

With reference to paragraph 9 of No. S.-14-130, dated 17th August 1915, from your D. D. M. S., I am directed to inform you that every endeavour will be made to meet demands for medical stores required for the Forces in the Field.

2. I am also to state that the reserve of medical stores in India have already been largely drawn upon, and that the receipt of supplies from England is uncertain. Large indents such as submitted may therefore render difficult the supply of medical stores for the Army, and it is essential that this supply should be given first consideration. The requirements of the civil population, therefore, should not be estimated for on such indents.

Letter No. P.-5-197, dated 19th July 1915.

From—The Deputy Director, Medical Services, Indian Expeditionary Force "D".

To—The Director, Medical Services in India.

In view of the large amount of drugs consumed by this Force, it would be advisable to increase the stock of medicines maintained by No. 8 Advanced Depôt Medical Stores at Basrah and this would necessitate an increase of the personnel.

I suggest that the personnel be doubled and a writer added.

At present, both No. 8 at Basrah and No. 9 at Amarah indent directly on Bombay for their requirements.

Letter No. 7447-16 (D. M. S.-3), dated 7th August 1915.

From—The Director, Medical Services in India.

To—The Deputy Director, Medical Services, Indian Expeditionary Force "D,"
c/o Presidency Postmaster, Bombay.

With reference to your No. P.-5-197, dated 19th July 1915, I have the honour to draw your attention to this Office No. 7447-15 (D.M.S.-3), dated 3rd August 1915, in which it is pointed out that it would be more satisfactory, if, in future, smaller and more frequent indents are made, based on the actual expenditure.

2. I would add that if an increase in stock is essential and is ultimately sanctioned, revised proposals for increased establishment may be submitted, if experience shows them to be absolutely necessary.

XIII

Question 15.

*Question :—*The Commission has been informed that the delay in erecting suitable hospital buildings in Mesopotamia is due to the delay in supplying material and skilled labour from India. Information is therefore sought as to the applications made for material and labour and the manner in which these applications have been dealt with.

*Answer :—*Statements are attached giving the information, as far as possible, required for the Medical Commission regarding the supply of materials for hospitals to Force " D ".

Certain information is still awaited from Commanding Royal Engineer, Bombay, *vide* remarks in the last columns of the statements.

This statement deals only with labour, stores and materials demanded specifically for hospital purposes. No doubt a great many other similar materials demanded in the monthly and other indents were required in connection with hospitals but it is impossible to differentiate them.

Statements regarding the supply of materials for hospitals to Force " D " are contained in Tables following.

TABLE A.

Question 13.

STATEMENT OF LABOUR REQUIRED FOR HOSPITALS AT BASRAH.

Diary No. and date of receipt.	Ordered from	No. and date.	Details.	No. of men sent.	Date of despatch.	Remarks.
46621	A. C. R. E.,	15072	200 carpenters	30 ...	25-4-16.	
3-4-16.	Calcutta.	5-4-16.		170 ...	10-5-16.	
35057.	G. E.,	15030-1	50 carpenters ...	25 carpenters	12-2-16	
19-1-16.	Lahore Cantt.	21-1-16 ...	5 mistries ...	3 mistries		
			25 smiths ...	25 carpenters 2 mistries	10-2-16	
				25 smiths ...	12-2-16	
35612	A. C. R. E.,	15030	100 carpenters	100 carpenters	10-2-16	
22-1-16.	Calcutta	22-1-16.		8 mistries ...	10-2-16	

A. F. CUMBERLEGE.

STATEMENT OF WOODEN SCANTLINGS REQUIRED FOR HOSPITALS AT BASRAH.

Diary No. and date of receipt.			Ordered from.			No. and date.			NAME OF SUPPLIER. (1)			RISALDAR.				BANKURA.	WAR- TURNS.	HAVIL- DAR.	WINDSOR HALL.			HARTINGTON.			RISAL- DAR.	HAYILDAR.	RISALDAR.	Shipment applied for June 15th.		TOTAL.		
									JANUARY 22ND.				JANUARY 24TH.	JAN. 31ST.	FEB. 4TH.	FEBRUARY 19TH.			FEBRUARY 23RD.			MAR. 6TH.	MARCH 20TH.		APRIL 14TH.							
									Pestonji Jamsji & Co. (2)	Dalal. (3)	Chotani (4)	McKenzie & Co. (5)	Chotani. (7)	Kareem Suleman. (9)	McKenzie & Co. (10)	Dalal. (11)	Chotani. (12)	McKenzie & Co. (13)	Chotani (14)	Chotani (15)	Dalal. (16)	Chotani. (17)	McKenzie & Co. (19)	Chotani (20)	Chotani (21)							
No. of Mats Receipt.									7811 (2)	7774	7853	7853	7905	7863 (4)	7863 (4)	7950	8017	8311	8305	8351 (4)	8352	8368	8412	8565	8536	9446	10039	...				
Timber Scantling.																																
Dimensions Length Nos.																																
4"	5"	7'	2,500	250	(a) 200	...	...	500	...	...	...	...	...	...	...	519	...	401	...	...	...	...	...	...	500	...	...	...	...	...
4"	5"	6'	1,200	...	(b) 100	...	...	500	(c) 250	...	...	...	...	...	...	400	...	100	61	18	...	...	...	...	...	7	14	...	...	1430
4"	4"	16'	4,300	...	...	...	1100	185	189	30	...	...	...	...	...	57	...	1,674	18	6	40	...	...	...	...	...	...	...	62	6433
4"	4"	12'	2,000	...	1198	...	758	165	235	87	...	...	...	...	...	...	...	...	...	...	85	...	...	...	85	...	...	...	...	2009
5"	6"	22'	2,000	...	...	...	...	328	...	...	...	...	...	...	...	1001	...	...	108	36	...	...	...	...	267	260	...	...	...	2795
5"	6"	16'	2,500	500	200	...	880	10	20	105	...	...	...	...	...	474	...	...	257	85	...	...	...	...	...	74	...	...	...	...
5"	4"	16'	4,500	...	...	...	3475	...	164	...	...	...	...	...	...	...	...	...	...	...	86	...	...	...	...	...	...	...	...	...
5"	4"	12'	6,000	...	...	...	...	...	299	70	...	...	...	...	...	...	...	45	...	...	455	...	1,011	595	...	...	...	...	...	...
5"	4"	10 1/2'	13,000	...	2144	224	...	600	80	...	...	...	...	...	...	8,509	495	906	1,451	484	753	...	1,341	543	...	...	...	463	...	30,000
5"	4"	8'	10,700	...	...	1,495	660	...	...	...	...	...	...	...	...	2,416	...	2,432	1,431	477	159	...	1,054	107	...	...	...	...	...	...
5"	4"	6'	6,000	...	...	687	1,180	...	...	...	...	...	...	...	...	1,883	...	113	1,086	560	...	...	...	...	...	...	...	...	...	...
5"	3"	12'	14,000	...	1678	100	3574	130	470	110	...	...	...	...	...	839	719	5,326	161	53	...	123	1,793	460	379	18	...	...	13,673	
2"	6"	12'	1,000	500	...	...	...	200	...	...	...	...	...	...	...	...	102	530	...	...	...	...	...	...	...	...	...	...	...	...
2"	5"	12'	11,000	...	4734	...	1617	...	868	439	2,000	...	...	...	...	...	...	1,864	...	...	240	206	...	...	...	...	...	64	21,000	
2"	5"	10'	10,000	...	...	1266	...	580	...	1,000	...	...	...	...	...	...	...	...	...	...	530	...	...	113	...	...	...	...	...	...
1"	2"	10'	10,000	5,000	...	...	...	...	...	...	...	...	...	200	...	...	...	3,000	...	...	...	884	...	...	...	...	...	...	...	5,184
1"	12"	12'	5,000	...	2018	...	1510	...	...	...	...	...	...	...	...	...	...	1,000	...	...	...	424	...	...	...	...	...	...	...	4,742
Value of shipment			...	4-6	21,179-11-9	541-14-0	30,399-7-5	14,428-6-0	647-9-10-3	3,537-12-0	31,396-12-3	4,707-10-6	29,364-12-6	17,076-5-2-8	...	3,390-10-3	1,609-9-6	7,015-9-0	3,871-10-0	7,106-2-0	2,123-6-6	7,353	...						...
Value per ship			...	...	73,889-19-5	...	6,105-10-5	3,537-12-0	31,396-12-3	4,707-10-6	29,364-12-6	17,076-5-2-8	...	3,390-10-3	1,609-9-6	7,015-9-0	3,871-10-0	7,106-2-0	2,123-6-6	7,353	...	...	...						...
Monthly Totals			...	...	82,156-9-8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	4 1/2 % of order.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(a) No. Pieces shipped = 100 each 14' long
(b) " " = 50 " 12' "
(c) " " = 150 " 12' "

*Includes the cost of McKenzie's shipment in Hartington (8,552)

TABULAR C.

Statement of Timber required for Hospitals at Basrah.

Diary No. and date of receipt.	Ordered from	No. and date.	Details.	QUANTITIES DESPATCHED.		Names of ships and dates of despatch.	BALANCE REMAINING TO BE SENT.		Remarks, by C.R. E., Bombay, on 6th June 1916.
				Sizes.	Pieces.		Quantity.	Probable date of despatch.	
1871 25-12-15	A. C. R. E. Bombay.	12743 25-12-15	Piece ceiling 200,000 square feet.	6" x 1 1/2"	Sq. ft. 110,445	" Risaldar," 22nd January 1916.	..	Sqr. ft. 36,296	Were shipped on "Windsor Hall" April 27th in excess against your 12743, dated April 13th, (General Officer Commanding, Force 'D,' No 189-108-E., dated 12th April). Freight applied; for will probably sail by June 10th-12th. To complete the order will be sent by the next ship.
			1 1/2 Pine planking	6" x 1 1/2"	4,009	" Windsor Hall," 22nd February 1916.	..	..
			200,000 square feet in lengths of multiples of 3 feet	6" x 1 1/2"	12,543	" Hartington," 5th March 1916	..	9600	
				6" x 1 1/2"	29,932	"Sofala," 13th April 1916.	..	2200	
			Total		151,919		Sqr. ft. 48,681	Total 48 096.	
			12" x 1 1/2"		113,707	" Risaldar," 22nd January 1916.	..		
			12" x 1 1/2"		10,968	" Windsor Hall," 22nd February 1916.	..		
			12" x 1 1/2"		10,185	" Risaldar," 8th March 1916.	..		
			12" x 1 1/2"		10,371	" Hartington," 5th March 1916.	..		
			12" x 1 1/2"		4,597	"Sofala," 12th April 1916.	..		
			Doors 4' wide 6 1/2" high half glazed 700	12" x 1 1/2"	5,486	"Orissa" 1st May 1916.	Sqr. ft. 41,632	June 20th	
				12" x 1 1/2"	3,394	"Clan Ogilvy" 1st June 1916.			
				Total	158,368				
				4' x 6 1/2"	Nos. 88	"Risaldar" 8th March 1916.	..		
				4' x 6 1/2"	37	"Havildar," 22nd March 1916.	..		
				4' x 6 1/2"	82	"Windsor Hall" 22nd March 1916.	..		
				4' x 6 1/2"	160	"Chanda," 26th May 1916.	..		
				4 x 6 1/2	139 1/2	"Nizam," 3 1916.	Nos.	June 10th-12th.	
				4' x 6 1/2"	150	"Wartums."	43 1/2	June 20th.	
			Total						

TABLE D.

Statement of Materials required for hospitals at Basrah.

Diary No. and date of rec ^d pt.	Ordered from	No. and date.	Details.	Quantities sent.	Names of Ships and dates of despatch.	REMARKS.
31871 25-12-15.	A. C. R. E., Bombay.	12743 25-12-15.	Windows, glazed, complete— 4' square in 2 leaves ... 1,200 Anchors 100, 2 cwts. each ... Corrugated iron sheets, 32" broad— 8' long ... 6,000 7' long ... 12,000 6' long ... 3,000 Galvanized iron sheets, plain, 3 feet broad ... 6,000 (Lineal ft.)	200 window teak ... 14 bundles window teak 65 nongs loose anchors, large, 2 cwts. each 6 nongs anchors 29 anchors. 100	Havildar, 3-2-16. Havildar, 20-3-16. Risaldar, 22-1-16. Havildar, 3-2-16. Brauntels, 6-1-16. and Havildar, 3-2-16.	On 31st May 1916, Com- manding Royal Engineer, Bombay, was asked to report the number of win- dows the bundles con- tained and when the balance will be des- patched. The reply is awaited.
33289 5-1-16.	A. C. R. E., Bombay.	12743 6-1-16.	Chemical fire extinguishers for 200 hospital huts (Simplex type).	50 fire extinguishers brackets and fillings. 25 fire extinguishers ...	Havildar, 23-1-16. Risaldar, 17-4-16.	Commanding Royal Engi- neer, Bombay, has been asked to send the balance of the extinguishers.

42074	7-3-16.	C. R. E., Bombay.	12743	...	Panes of glass, 10' x 8"	...	5,000	28 Cases panes of glass	...	Havildar, 20-3-16.	Commanding Royal Engineer, Bombay, was asked on 30th May 1916, to report the number of panes the cases contained. Reply is awaited.
44342	21-3-16.	Do.	12743	...	Lost fans	...	60	30 fans	...	Safola, 11-4-16.	Commanding Royal Engineer, Bombay, reported that the remaining would be sent by week ending 10th June 1916.
45616	27-3-16.	Do.	12743	...	Hospital fittings—	...	14	1 Case containing bath ...	...	Orissa. 1-5-16.	Commanding Royal Engineer, Bombay, was asked on 30th May 1916, to report the number of hospital fittings sent. Reply is awaited.
45014	18-1-16	A. C. R. E., Bombay	15022-2	...	Iron work for hospital huts—	...	40	1 Case earthen ware sinks with brackets.	...	Windsor Hall. 21-2-16.	Commanding Royal Engineer, Bombay, was asked on 30th May 1916, to report the number of hospital fittings sent. Reply is awaited.
			19-1-16	...	Iron straps 1½" x ¼" with ½" bolt holes	...	4,000		...		
				...	Iron straps 2" x ½" with ½" bolt holes	...	2,000		...		
				...	Iron straps 1" x ¼" with holes for 3" screw	...	2,000		...		
				...	Iron straps 1" x ¼" with holes for 3" screws	...	4,000		...		

TABLE D.

Statement of Materials required for hospitals at Basrah—contd.

Diary No. and date of receipt.	Ordered from	No. and date.	Details.	Quantities sent.	Names of Ships and date of despatch.	REMARKS.
24292	A. C. R. E.	12743-22	Bolts $7\frac{1}{2}'' \times \frac{1}{2}''$ threaded $1\frac{1}{2}''$ with nuts and washers ... 4,000	Full ...	Risaldar.	C. R. E., Bombay, was asked (31st May 1916) to report whether these cases contained the full number of hinges ordered and if not when the balance would be sent. Reply is awaited.
15-10-15.	Bombay	15-10-15.	Bolts $5'' \times \frac{1}{2}''$ threaded $1\frac{1}{2}''$ with nuts and washers ... 8,000			
			Hinges, iron bnlt, 3"	7 cases iron hinges	Windsor Hall.	
			Hinges, " " 4"			
					22-2-16.	
			Oil stoves for heating hospitals —			
			100 about 12" high ...	140 ...	Braunfels.	
			50 " 20" " ...	10 ...	Risaldar.	
					6-12-15.	
			15 radiators, 4 lamps type each voltage of 220.	1 Case* radiators	Havildar	* C. R. E., Bombay, has been asked to report the number of radiators this case contained.
				7 Radiators	28-12-15.	
				2 Ditto.	Braunfels	
					17-11-15.	
					Risaldar.	
					21-1-16.	

TABLE D—(Continued.)
Statement of materials required for hospitals at Basrah.

Diary No. and date of receipt.	Ordered from	No. and date.	Details.	Quantities sent.	Names of Ships and dates of despatch.	Remarks.
30405 12-12-15 Simla.	A. C. R. E., Bombay.	2-M. 12-12-15.	Oil heating stoves (additional to above). 100 about 1 foot high ... 50 18" high ...	60 ... 30 ... 52 ...	Havildar. 28-12-15. Varzin. 10-1-16. Risaldar. 21-1-16.	
Ditto. 15-12-15 Delhi.	Ditto.	12743 17-12-15.	500 Persian heaters ...	142 20 ... 175 ... 158 ... 156 ... 509	24-12-15. Braunfels. 6-1-16. Risaldar. 21-1-16. Havildar. 3-2-16.	
38519 13-2-16.	A. C. R. E., Bombay.	15022-4 13-2-16.	Patent roofing material, 1,00,000 Sq. feet.	84 rolls 20 " } 351 " } Full demand 39 " }	Windsor Hall. 22-2-16. Havildar. 21-3-16. Risaldar. 11-3-16. Pentakota. 16-3-16.	
47188 7-4-16.	C. R. E., Bombay.	12743 7-4-16.	Wire webbing required for hospitals— sq. feet. Mosquito proof 16 mesh ... 1,50,000 Fly proof 8 " ... 20,000	1,00,000 Sq. feet. 183 rolls 201 "	Nizam. 1-4-16. Warturn. 29-4-16.	C. R. E., Bombay, reported on 6th May 1916 that with the exception of rolls all remaining material ordered (including that ordered for other purposes in the March and April indent) was ready for despatch.

Quest'on 14.

*Question :—*It has been suggested that much of the sickness in Mesopotamia is due to the failure to provide adequate sanitary establishments. In particular, that the number of sweepers is hopelessly inadequate and that this has been frequently pointed out to the military authorities in India. It has also been stated that men have been sent out in various capacities for hospitals who are useless for the duties for which they are enlisted. These allegations are made in particular in regard to sweepers, dhobis, carpenters and tailors. The Commission would be glad to be informed as to the manner in which the recruitment of these menials is conducted, the measures taken to ensure that suitable men are enlisted and in the case of sanitary sections, dates in which applications have been made and the necessary staff despatched.

*Answer :—*All demands for sanitary establishments received in the Medical Branch, Army Headquarters, have been complied with with the least possible delay. Sweepers, dhobis, carpenters and tailors, being temporary personnel, have been recruited in all Divisions as required. Such men had often to be obtained and despatched at very short notice, and it is probable that their capabilities were not tested before they were despatched. A depot for menial followers has been established at Poona with a view to maintaining a reserve of these classes, but great difficulty is being experienced in recruiting men at the rates of pay sanctioned. Government has, therefore, been asked to sanction the entertainment of men at the lowest rates at which procurable. While at this depot the temporary personnel will be examined as to their fitness in all respects.

With regard to Sanitary Sections the General Officer Commanding Force "D" telegraphed on the 7th March 1915 that 110 sweepers were urgently required for the increase of posts and sanitary sections. A further report was received on the 11th *idem* that the sanitary arrangements were insufficient and that the need of a Deputy Assistant Director of Medical Services and a Sanitary Section were imperative. An expert in sanitary matters, in charge of a Sanitary Section and 50 additional sweepers were despatched on the 17th April 1915. On the 23rd June 1915, 50 sweepers for sanitary section were asked for. These were despatched on the 25th July. A demand for 200 sweepers for river boats was received on the 9th December 1915. 71 were despatched on the 25th December, 96 on the 25th January and 30 on the 27th January. On the 16th February 1916, the Director of Medical Services, Force "D", requested that another sanitary section complete should be sent. Steps were immediately taken for the provision of this unit. Considerable difficulty was experienced in obtaining the required personnel, but it sailed from Bombay on the 10th April.

Correspondence regarding the provisional sanitary establishments.

Telegram No. Q.-463, dated the 7th March 1915.

From—General BARRETT, Commanding Force "D", Basrah.

To—The Chief of the General Staff, Delhi.

* * * * *

More sweepers urgently required for increase of posts and for sanitary sections.

Kindly send 110 of these not being obtainable locally.

Telegram P., No. 255-G., dated 11th March 1915.

From—GENERAL BARRETT, Commanding Force "D", Basrah.

To—The Chief of the General Staff.

For reasons given below present sanitary arrangements are insufficient and in addition 1 Deputy Assistant Director, Medical Services, and 1 Sanitary Section are imperative for "D" Force.

The recent high floods have added to the difficulties of sanitation.

Work by sanitary detachments is only possible in their own immediate neighbourhood.

The difficulty of sanitary work at the base is increasing.

Telegram P., No S.-7281, dated 10th April 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding Force "D", Basrah.

It is being arranged to send Major Cofok Young, I.M.S., in charge of a Sanitary Section, and 50 more sweepers from Bombay to Basrah on 17th instant.

This is with reference to your Q.-34-D. of April 7th.

Telegram No. S.-8093, dated 20th April 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Reference my No. S.-7281 of 10th April and your No. 677-A. 13th March Major Cook Young, I.M.S., 122 followers and equipment of Sanitary Section also 50 A. B. C. men embarked on "Arankola". The British and Indian combatant personnel required for Sanitary Section must be found from your Force.

Telegram No. S.-7-32, dated 23rd June 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah.

To—The Chief of the General Staff.

Owing to increase of Lines of Communication and sickness 50 more sweepers urgently required for the sanitary section.

Telegram No. S.-15819, dated 22nd July 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D", Basrah.

Reference my S.-13191 of 25th June and your S.-7-32 of 23rd June. 9 Army Hospital Corps attendants and the 50 sweepers for sanitary section are proceeding with July reinforcements. Temporary Lieutenant Jameson, R. A. M. C., Assistant Surgeon Dewey for Bacteriological Laboratory, and one sikligar are also proceeding with July reinforcement. The sikligar is being sent to replace the sikligar who joined your Force with No. 9, Advance Depot of Medical Stores, who should, on relief, be returned to Rawalpindi for discharge.

Telegram No. 40-1-S., dated 9th December 1915.

From—The Deputy Director, Medical Services, Force "D", Basrah,

To—The Chief of the General Staff.

Owing to the large increase in the Force and to ensure efficient sanitation in the river boats 200 more sweepers are urgently required.

Telegram No. S.-32266, dated 27th December 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D", Basrah.

The following medical personnel is proceeding on "Bankura"—7 ward servants, 1 cook, 1 dhoby, 2 water-carriers and 4 ward sweepers, Army Hospital

Question 14.

Corps; 76 bearers, Army Bearer Corps; 1 Muhammadan cook, 2 Hindu cooks, 1 Muhammadan water-carrier, 3 Hindu water-carriers, 79 sweepers, 3 pakhali bhistis, 7 washermen, 2 hospital storekeepers, 2 hospital storekeepers' assistants, 1 hospital writer, 1 carpenter, 1 packer, 1 sikligar, 1 tailor and bildar.

The above includes 71 of the sweepers asked for in your D. D. M. S. 40-1-S. of 9th December, the balance of which will be sent at the first public opportunity.

Telegram No. 36180, dated 26th January 1916.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Your D. D. M. S. 40-1-S., dated 9th December, and continuation of my S.-32266, dated 27th December.

96 sweepers are proceeding on Hired Transport "Ellenga".

Telegram No. 37107, dated 2nd February 1916.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D", Basrah.

Your D. D. M. S. 40-1-S., dated 9th December and continuation my S.-32266 of 27th December and 36180 of 26th January.

30 sweepers were despatched on 27th January from Karachi.

This makes a total of 197.

Telegram No. S.-7-70, dated 16th February 1916.

From—The Director, Medical Services, Force "D", Basrah,

To—The Chief of the General Staff.

Please send another Sanitary Section complete for duty in Mesopotamia.

Telegram No. 48231, dated 12th April 1916.

From—The Chief of the General Staff, Simla.

To—The G. O. C., Force "D" Basrah.

Your D.M.S.S.-7-70, dated 16th February 1916. The Sanitary Section is proceeding in "Chakdara".

Quartermaster-General's Branch.

1. This Branch is concerned with the 2nd clause of paragraph 14 of the memorandum received in the Army Department from the Medical Commission. The rest of this paragraph refers to establishments entertained for duty in hospitals, and for these establishments the Medical Branch is responsible.

2. This Branch has been dealing with the demand from the General Officer Commanding, Force "D", made at the end of March, for 450 latrine sweepers. Since that date we have been endeavouring to engage these men in Divisions practically on any terms. From time to time reminders of the urgency of the requirement have been sent to Divisions, and local authorities have been informed that they can pay these men at the lowest local available rate, or practically at any rate, at which they could be got.

3. In response to an enquiry as to the difficulties experienced in recruitment, General Officers Commanding Divisions generally reported that the men required

either do not appear to be forthcoming in sufficient numbers or would not come forward for service whatever pay was offered to them.

4. By the 19th May 1916 we had collected only 115 out of the required number of 450 sweepers, and had reached the conclusion that we could do no more in the Military Department. Secretary, Army Department, was therefore addressed in the matter and we have enlisted the assistance of the Home Department. The Home Department has now issued a letter dated 26th May, to all Local Governments, suggesting that men of sweeper caste who are now prisoners in jails, and whose criminal record is such as to make it possible to release them, should be asked to take up service in Mesopotamia on pay of Rs. 15 a month with the condition that if their service there is satisfactory they will not be required to return to prison but will be given their liberty either at the end of the war or when invalided from field service. Local Military authorities are to co-operate with Civil authorities in the selection of such of these men as may be willing to accept the terms. We have not yet had time to hear what number of men we can obtain by this method of recruitment. Application has also been made to General Officer Commanding, Troops in Egypt, to send sweepers to Mesopotamia and he wired on 22nd May 1916 that 60 would be despatched the first available opportunity, and another 40 would be available soon.

Should sufficient sweepers not be forthcoming from the jails, Mr. Booth Tucker of the Salvation Army believes that he could arrange for the numbers required from the criminal tribe of Doms if an impressment order were issued under an ordinance for such criminal tribe, but this would be a last resort.

C.—QUESTIONS ADDRESSED TO THE DIRECTOR
MEDICAL SERVICES IN INDIA.

Questions on which the Commission desire specific information.

I

Question.—Please produce the letter of the A.D.M.S., I. E. F. "D," No. Question 1. 2250-Medical dated the 10th April, to which your letter No. 8147-1, dated the 27th April 1915, is a reply.

Answer.—Letter No. 2250-Medical, dated 10th April 1915, from A. D. M. S., I. E. F. "D," is placed below.

Letter No. 709, dated Basrah, 29th March 1915.

From—The Officer Commanding, No. 9 Indian General Hospital,

To—The Assistant Director, Medical Services, Indian Expeditionary Force "D,"

I have the honour to lay the following matter before you for favour of your consideration and necessary action.

2. Captain A. S. Leslie, I.M.S., fell ill at Bombay with acute appendicitis when on the way here and had to go to Hospital where he was operated upon. I have never heard anything further officially about him, though I understand he has been invalided to Europe. I, therefore, beg to request that I may be permitted to strike him off the strength of my hospital, and that arrangements be made to replace him.

3. 1st Class Sub-Assistant Surgeon (No. 175) J. Daniel was sent back to Bombay on duty with the sick convoy on board the S.S. "Erinpura" at the end of November 1914. He was ordered to rejoin this hospital but I have never heard anything more about him. I desire permission to strike him off the strength of this hospital.

4. I am now three Sub-Assistant Surgeons below strength and this shortage is being very acutely felt, as I have in addition two Sub-Assistant Surgeons on the sick list making a total deficiency of five Sub-Assistant Surgeons at the present time.

I would, therefore, request that arrangements may be made to bring my Sub-Assistant Surgeons up to full strength. The services of the full staff of Sub-Assistant Surgeons are urgently needed in this hospital as we have now about 800 patients.

Letter No. 2250, dated Basrah, the 10th April 1915.

From—The Assistant Director of Medical Services, Indian Expeditionary Force "D",

To—The Director, Medical Services in India.

Forwarded for favour of compliance please as far as practicable.

The Force is short of another Indian Medical Service Officer in addition to Captain Leslie, owing to the despatch of Captain Duncan, I.M.S., from No. 57 Indian Stationary Hospital to Bushire. With the increase of the Force, the future average number of patients in the Indian General Hospital will vary from 750 to 800; it is officered for 600 beds only.

As the Force is 9 Sub-Assistant Surgeons short, I am unable to meet the demand of the Officer Commanding, Indian General Hospital, regarding his deficiency of these subordinates.

Letter No. 8147-1 (D. M. S.-5), dated 27th April 1915.

From—The Director, Medical Services in India.

To—The Assistant Director, Medical Services, Indian Expeditionary Force "D".

With reference to your 2250-Medl., dated 10th April 1915, I have the honour to inform you that it is regretted that there are no Indian Medical Service

Officers or Sub-Assistant Surgeons available at present but endeavours are being made to induce Civil Sub-Assistant Surgeons to accept the obligation of proceeding on active service. If these endeavours are successful the claims of Indian Expeditionary Force "D", to reinforcements will receive due consideration.

II.

Question 2.

Question.—Were any steps taken to meet the demands made by Colonel Hehir and General Hathaway for additional medical personnel including medical officers, Assistant Surgeons and Sub-Assistant Surgeons made in April and May up to June 23rd? If not, was this failure due to the lack of establishment in India? Please give details showing what the available establishment was and the demands likely to be made. Were attempts made to secure the necessary establishment outside India? and when were the additional officers referred to in your telegram No. S.-13016, dated the 23rd June (Serial No. 57)* actually despatched. It appears that on the 14th June 1915 the General Officer Commanding the Force had informed the authorities in India that in one hospital alone, *viz*, the Indian General Hospital, twelve sub-assistant surgeons alone were available for duty against a staff of 30. How then can it be said as stated in paragraph 13 of the note† that all the deficiencies in General Hospitals with the exception of seven Royal Army Medical Corps Officers and eleven sub-assistant surgeons were made good? On the 19th July five Royal Army Medical Corps Officers for general duty were asked for by the Director, Medical Services, of the Force. Are these the officers that were sent on the 13th September?

* *Vide infra* (1).

† *Vide infra* (2)

Telegram P., No. S.-13016, dated 23rd June 1915.

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

The Bengal Stationary Hospital will sail in the Hospital Ship "Madras" for Basrah on * * It is equal in accommodation to 2 Sections, Indian General Hospital. As soon as possible, a British General Hospital of 100 beds, with equipment and personnel complete, will be despatched. It is now being prepared. 6 Regular Officers and 3 temporary Lieutenants of the Indian Medical Service will leave on * * for Basrah in the Hospital Ship "Madras." As soon as they are engaged 2 more temporary Lieutenants, I.M.S., will be sent. With the exception of 7 R. A. M. C. Officers, the entire personnel for the British General Hospital requested in your D.D. M. S. No. H.-1-726 (*Diary No. S.-11048*), dated May 27th, will be despatched about June 25th. Please inform me by cable, what further personnel for the Medical Units of your Force will be required now.

This refers to your 643-1-Q. (*Diary No. S.-12657*) and 643-3-Q. (*Diary No. S.-12914*) of 18th and 21st June, respectively, and is in continuation of my S.-11244, dated 31st May.

13. On the 18th June, the General Officer Commanding the Force telegraphed that :—

- (i) He was in great need of more personnel for British and Indian General Hospitals.
- (ii) The number of officers in field ambulances had already been reduced.
- (iii) 8 invalided medical officers had sailed for India in the "Madras" and "Bankura."
- (iv) In the Indian General Hospital, out of the establishment of 40 sub-assistant surgeons, only 12 were able to do duty.
- (v) He was also in great need of assistant surgeons.
- (vi) Slight cases of illness recovered quicker at Amarah than at Basrah, and he required for the former, 2 sections of an Indian General Hospital and one section of a British General Hospital. Unless,

however, he was given the personnel required for the General Hospitals, he would not be in a position to send any section from Basrah.

Question 2.

This was followed by a telegram to the effect that in the British General Hospital, which contained 330 sick, only one Indian cook was fit for duty, and that the services of British soldiers were being utilised as a temporary measure, but some of them had no experience in cooking. The General Officer Commanding added that the supply to the General Hospital of the minimum menial establishment, for which he had already asked, was imperative, and that he anticipated a complete breakdown of the General Hospitals unless an early improvement was made in the condition of affairs.

A telegram was then despatched to the General Officer Commanding informing him that :—

- (i) 6 regular officers and 3 temporary Lieutenants of the Indian Medical Service would sail for Basrah on the 28th June in the Hospital Ship "Madras," and that as soon as they could be engaged, 2 more temporary Lieutenants of the Indian Medical Service would be sent.
- (ii) With the exception of 7 R. A. M. C. officers, the entire personnel for the British General Hospital asked for by his Deputy Director, Medical Services, would be despatched about the 25th June 1915.
- (iii) The Bengal Stationary Hospital, which was equal in accommodation to 2 sections of an Indian General Hospital, would sail for Basrah in the Hospital Ship "Madras" on the 28th June 1915.
- (iv) As soon as possible, a British General Hospital of 100 beds would be sent.

The deficiencies in General Hospitals, with the exception of 7 R. A. M. C. officers and 11 sub-assistant surgeons, were thus made good, and, in addition the General Hospitals required for Amarah were supplied.

Answer.—From May up to June 23rd the demands for Medical personnel were as follows :—

(a) For B. G. H.		(b) For I. G. H.	
Royal Army Medical Corps		Indian Medical Service Officers ...	
Officers.	9		5
Assistant Surgeons	... 10	Sub-Assistant Surgeons	... 11
Writer	... 1	W. Orderlies	... 2
H Storekeeper	... 1	H. S. Keeper	... 1
Ward Servants	... 41	Hindu Cooks	... 10
Cooks	... 8	Bhistis	... 17
Water Carriers	... 8	Dhobies	... 4
W. Sweepers	... 16		
Washermen	... 10		

- (a) *Royal Army Medical Corps Officers.*—In Serial No. 46. "D" was told that it was not possible to meet his demands from India, that 2 would be sent, and to meet the remaining deficiency, it was suggested that the 6 Officers in the reorganised Combined Field Ambulances should be reduced to 5, thus setting free 4 Officers. This gave $2+4=6$ Officers against the 9 asked for.

The minimum requirements of Royal Army Medical Corps Officers in India in May 1915 were 196 Officers and the number available was 199. 2 of this surplus were being sent and 1 retained in India for casualties. Obligations for reinforcements excluding France were 3 Officers per mensem @ 2 % per mensem.

Assistant Surgeons.

The position in India in May was as follows :—

Minimum requirements	...	...	...	282
Present in India	...	...	...	291
Balance available	...	...	...	9

Question 2

At that time our obligations for regular reinforcements for all forces overseas based on the small percentage of two % per mensem, was 6 Assistant Surgeons monthly. Thus there was at this time only $1\frac{1}{2}$ months reserve in hand (without withdrawing 99 still in Civil employ.)

No Assistant Surgeons were sent in response to this particular appeal. On receipt of Serial No. 53, dated 18th June 1915, however, the Assistant Surgeons and all of the remainder of the demand made in Serial No. 43, with the exception of the 7 Royal Army Medical Corps Officers who could not be spared, were sent for embarkation and sailed on 25th June.

This disposes of the remainder of (a).

(b) *Indian Medical Service Officers.*

The position in India in May 1915 was as follows:—

Minimum requirements in India	...	...	...	...	196
In Military employ, including temporary Lieutenants	...	...	...	...	213
<hr/>					
Balance available	...	...	...	...	17
Obligation in reinforcements for all forces at 2% per mensem...	...	...	...	...	9
Still in Civil employ and available but not liable for surrender	...	...	...	...	16
Total reserve at that time	...	...	...	...	33

representing nearly 4 months' reinforcement reserve, but not allowing for wastage in India. The demand in Serial No. 35 was for 5 Indian Medical Service Officers, and in Serial No. 46, dated 31st May 1916 5 temporary Lieutenants were promised.

In Serial No. 53, dated 18th June 1915, this demand rose to 13 Indian Medical Service Officers.

In S. No. 57, dated 23th June 1915, 11 of these 13 were arranged for and 10 of them were despatched on 2nd July 1915. One failed to embark owing to illness.

Sub-Assistant Surgeons.

11 were wanted.

Position in India in May.

Minimum requirements	...	...	...	...	442
Available in India	...	...	...	...	508

Of these 508—279 was Civil Sub-Assistant Surgeons not liable for field service beyond the frontier of India and 131 of the Military Sub-Assistant-Surgeons were physically unfit for Field Service.

The only personnel available for active service was therefore 508 minus 279 Civil Sub-Assistant-Surgeons minus 131 Military Sub-Assistant Surgeons unfit=98 Military Sub-Assistant Surgeons, who had to be retained over against the North-West Frontier scheme as then existant, a real requirement of 136 Sub-Assistant Surgeons.

On 24th April 1915, this Branch put up a case to Government for better terms to be offered to Civil Sub-Assistant Surgeons to volunteer for Field Service, and on 7th July 1915 a scheme was raised in this Branch for the employment of Civil Medical Pupils and Compounders as Dressers to take the place of Sub-Assistant Surgeons.

The remainder of the personnel for the Indian General Hospital sailed on 7th June 1915.

No attempts were made to obtain the necessary establishment outside India. In this connection it may be stated that, as late as September 1915, it was considered here (rightly or wrongly) useless to appeal to the War Office for Medical personnel, burdened as that Office was then with the great demands of the expanding New Armies.

With regard to the apparent discrepancy between this Office statement, that all the deficiencies in General Hospitals with the except of 7 R. A. M. C. Officers and 11 Sub-Assistant Surgeons were made good, and the statement of G. O. C., "D" regarding a grave deficiency in Sub-Assistant Surgeons it is brought forward that G. O. C., "D" refers on 14th June to effective strength and not to total establishment. We had no reason to believe that the difference represented deficiencies requiring replacement from India.

The five R. A. M. C., Officers asked for by "D" on 19th July (S. No. 70) were sent in September on the arrival of Officers from Home asked for in telegram No. H.-6022, dated 3rd July 1915 to Secretary of State.

It will be noted that nothing was heard regarding deficiencies of Medical personnel in Force "D" between 31st May (S. No. 46) and 19th June 1915 (S. No. 53) during which time a change of staff had occurred, owing to Surgeon-General Babbie's departure for Egypt.

The receipt of S. No. 53 necessitated a sharp review of the situation, and I place below a telegram to the Secretary of State and the noting leading up to its issue to show that the entire position as regards the Medical Services in India, their obligations and their difficulties was immediately reviewed in this Branch with care and anxiety.

Correspondence regarding the provision of Assistant-Surgeons and Sub-Assistant Surgeons.

Serial No. 46.

Telegram P., No. S.-11244, dated 31st May 1915.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D", Basrah.

We will despatch 5 I.M.S. temporary Lieutenants who have been engaged in India.

As the request for Medical Officers for the British General Hospital cannot be complied with I would propose that the establishment of the reorganized Field Ambulances be reduced from 6 to 5 Medical Officers each and I will send 2 officers of the Royal Army Medical Corps. Your further demands will be complied with if after due consideration it is found possible to do so.

The above refers to your D. D. M. S. wire of May 27th, No. H.-1-7-26.

Telegram P., No. S.-11 884, dated 9th June 1915.

Serial No. 50.

From—The Chief of the General Staff,

To—The General Officer Commanding, Force "D", Basrah.

The hospital storekeepers who failed to proceed by the "Thongwa" will
 * * * * * sail. It is regretted that at present no Sub-
 Assistant Surgeons are available. * * * * *
 Hindu dhobies, cooks, and bhistis, and ward orderlies, sailed for Basrah from
 Bombay in the "Thongwa".

This refers to your telegram No. 478-I.Q., dated April 29th.

Serial No. 58.
Question 2.

Telegram P., No. 643-I.Q., dated 18th June 1915.

(Despatched 3-15 P.M., 14th June 1915.)

From—The General Officer Commanding, Force "D", Basrah.

To—The Chief of the General Staff.

We are in great need of more personnel for British and Indian General Hospital. In field ambulances we have already reduced the numbers of medical officers. In the "Madras" and "Bankura" eight invalided Medical officers left for India, and this has caused still greater deficiency. In the Indian General Hospital out of an establishment of 40 Sub-Assistant Surgeons, only 12 are now able to do duty. We are also in great need of Assistant Surgeons.

In the British General Hospital, after departure of the wounded and sick on the "Bankura" and "Madras" we still have 321 officers and men; and 1,629 in the Indian General Hospital. We are soon sending in the "Thongwa" some 19 British and about 700 Indian patients out of the above numbers.

At Amarah slight cases of illness are better able to get well than at Basrah, and I, therefore, require for the former place 2 Sections of an Indian General Hospital and 1 Section of a British one; Unless, however, I am given what is required for General Hospitals, I am not in a position to send any Sections from Basrah.

A considerable increase in the proportion of sick has occurred, which is due to the very great heat which has prevailed since the first days of June. Latterly the conditions have been a little more favourable, but in the climate here recovery is much delayed even after only slight indisposition.

I would therefore ask that the great need for adding to the medical personnel here be laid before the Commander-in-Chief, as the staff here are far too small to be able to deal with the work under present circumstances.

Serial No. 70.

Telegram P., No. P.-5-198, dated 19th July 1915.

(Despatched 2-55 P.M., received 4-50 A.M., 20th July 1915.)

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff.

Am very short of Army Bearer Corps and require as many bearers as can be spared. Replacement requirements of medical personnel work out at 6 per cent per mensem.

I require for general duty at least five more officers, Royal Army Medical Corps.

This is in reply to your S.-13191 of 25th ultimo.

Statement prepared by Director, Medical Services, dated 7th September 1915.

This case concerns the present and future supply of Military Assistant Surgeons during the War.

<i>There are altogether employed on military duty.</i>	...	...	620 Military Assistant Surgeons.
Of these there are employed overseas	...	329	"
Absolute minimum required for India is	...	282	"
<i>There are in Civil employ</i>	...	99	"
Surrenderable	...	74	"
Stated by Civil Authorities to be non-surrenderable		25	"
Estimated reinforcements at 2 per cent on strength per month to all Forces Overseas...		6	"

For Force " A ".	3 per month.
" " B ".	1 "
" " D ".	1 "
" " E ".	1 "
	<hr/>
	6 "

Question 2.

Of the 74 surrenderable from Civil, 14 are under surrender for Indian General Hospitals in England, and 4 for Egypt. This leaves 56 still available.

For India's requirements.—We must leave a casualty and "unfit" reserve of 10 per cent on minimum requirements. 10 per cent of 282=28 so we should further diminish by 28 the 56 available for reinforcements, leaving 28 available.

This is equivalent to less than 5 months reinforcement for the Forces Overseas at the rate mentioned above.

After 5 months the only reserve would be the output of (circa) 20 new Military Assistant Surgeons per annum from the Schools.

There are, however, 28 Assistant Surgeons who have been given to the Expeditionary Forces in lieu of Sub-Assistant Surgeons. If these can be released our resources for reinforcements of Assistant Surgeons will extend over an extra five months.

The first and easiest step therefore is to apply existing machinery* to the release of these 28 Assistant Surgeons by supplying Sub-Assistant Surgeons previously deficient (or Compounders in lieu) to those Indian Medical Units on which Assistant Surgeons are now irregularly employed.

*Vide infra.

This, however, only delays the end, and throws an extra burden on the Compounder scheme, and the question of the provision of more Military Assistant Surgeon, or the replacement of them by other classes arises.

As regards the *Provision of more Military Assistant Surgeons*, the first direction in which we would naturally turn is that of Civil Assistant Surgeons.

The urgent need for temporary Indian Medical Service Officers, however, has resulted in this class being tapped for temporary Lieutenants, and as the line at first drawn between those of the higher registrable qualifications and those of lower qualifications has already been overstepped for the provision of officers, it would appear that this source of supply cannot be depended on.

In short, the position is that no Civil Assistant Surgeon is likely to be persuaded to accept employment as a Military Assistant Surgeon, when he can obtain a temporary Commission in the Indian Medical Service practically for the asking.

Failing these Civil Assistant Surgeons, the next direction to which we turn is that of the Civil Sub-Assistant Surgeon, who is ineligible for a Commission in the Indian Medical Service in any case.

Army Department letter No. H.-5532, dated 12th June 1915, offers terms to this class to engage as Sub-Assistant Surgeons for all military duties, and a certain number have already been entertained, but the most sanguine estimate of the number we can thus obtain cannot exceed twice the number who have, up to date, come forward on the terms offered by Government.

If, however, they were offered better terms and the temporary status of Military Assistant Surgeons, more might be obtainable.

I think, however, that as the primary function of Military Assistant Surgeons is employment in hospitals for British troops, and as part of their duties is the maintenance of discipline therein, we must regard this source of supply as out of the question under the heading of "Provision of more Assistant Surgeons".

A similar objection appears to rule out the employment of private Indian practitioners as temporary Military Assistant Surgeons, even if certain of this

2 Question community be induced by generous terms to engage as Military Assistant Surgeons, when temporary Commissions in the Indian Medical Service have been freely granted to their professional brethren.

These, I think, exhaust the sources from which temporary Military Assistant Surgeons could be drawn, as the rank implies a definite medical training and qualifications, and military status.

We are driven, therefore, to the *Replacement of Assistant Surgeons by other classes*.

First amongst these would appear to be R. A. M. C. non-commissioned ranks obtained from England. Every function of a Military Assistant Surgeon, beyond those of diagnosis and treatment of cases, can be fulfilled by the various branches of the R. A. M. C., and I consider that in this source of supply would be the most satisfactory solution of the difficulty with which we are at present faced.

As this, however, is a measure which would entail the lending of personnel by the War Office, it can only be urged here as a proposal on the broadest lines for reference to and consultation with the War Office.

Failing sanction to obtain these, it would appear that their places could best be taken by the class now employed largely in Europe and in Hospital Ships in the British organization as Dressers—I refer to medical students in the latter years of their studies. As the employment of these, however, always militates against the output of fully trained medical men, it cannot be regarded with much favour from the point of view of the State, and I can only consider it as a convenient but unsound measure of desperation.

Two measures are left to us beyond these dealt with above. Firstly, the employment of women nurses on a large scale, secondly, the employment of the Sub-Assistant Surgeon or Compounder class as civilians.

As regards the first of these expedients, women nurses are largely employed now in the British Medical Units in France, and it might be possible, by supplying to the British Lines of Communication Medical Units of the Indian Organization a number of India-trained nurses, to relieve the Military Assistant Surgeons of much of the dressing and nursing of the sick which could safely be left to trained women, and thus allow of a corresponding reduction in the War Establishments of these Units.

Similarly the employment of the Sub-Assistant Surgeon, or Compounder class from India would relieve the Assistant Surgeons of dispensing part of their duties and thus to enable the establishment of regular Military Assistant Surgeons to be reduced throughout Lines of Communication Medical Units, and create thereby a certain reserve.

Telegram No. S.-20326, dated 5th September (Despatched 5 P.M.) 1915.

From—The Commander-in-Chief in India, Simla.

To—The Secretary, War Office, London.

Your No. 19920, dated 1st September 1915. According to the scale of reinforcements of Assistant Surgeons which you fixed in your 2481 of 17th December last, we have already supplied you with three in excess. In addition to these, we have supplied 20 Assistant Surgeons in lieu of 40 Sub-Assistant Surgeons and 14 more Assistant Surgeons are being sent to England for duty in Indian General Hospitals there. As our reserve in Military Assistant Surgeons, is becoming exhausted we propose to endeavour to release these 34 Assistant Surgeons in Indian Units gradually by the supply of dressers whom we are endeavouring to obtain to make good the very serious shortage of Sub-Assistant Surgeons the supply of whom is exhausted. This is all I can do at present to meet the demands in your wire of 1st September.

I have prepared three statements which show the present position in India as regards Indian Medical Service Officers.

Statement A shews the minimum requirements of Indian Medical Service Officers in India for all purposes. This amounts to 183 officers.

Of these, 166 officers are at present in Military employ as shown in Statement B, and 32 officers remain as the final call from the reserve still in Civil employ. This could give a total of 198 officers to meet requirements in India in the event of mobilization here.

Statement C, shows how the requirements of Indian Medical Service Officers for the troops remaining in the various stations after mobilizations and consequent moves, must be met.

In Force "D" there exists a deficiency of 11 on the numbers of I.M.S. Officers required according to Organization Orders. This is exclusive of General Nixon's new demands for one Section British and 2 Sections Indian General Hospitals.

These new demands we propose to meet by despatching 1 Section of a British General Hospital, and by the Bengal Stationary Hospital, the accommodation of which is equal to 2 Sections of an Indian General Hospital.

This leaves the balance of I.M.S. Officers unaffected, but it is proposed to meet the original deficiency by despatching 5 temporary Lieutenants, Indian Medical Service, and six regular I. M. S. Officers from India, replacing the regular officers in India by six temporary Lieutenants, Indian Medical Service.

I propose this action, as I do not consider that the needs of Force "D" can be efficiently met by the supply of temporary I. M. S. Officers alone. These have no knowledge of military medical matters and such knowledge has to be acquired by them gradually. This can be done with less danger to working of the Military Medical Services under peace conditions in India, than under war conditions in Mesopotamia.

Royal Army Medical Corps.

The present strength of Officers A. M. S. and R.A.M.C. in India is, 9 of the former and 202 of the latter.

There are 2 Administrative and 26 Executive Officers with "D" Force. 2 junior officers are on their way as reinforcements and 4 more will be sent with a British Section of a General Hospital now being mobilized, these will make a total of 34 officers with the Force.

In case of special mobilization for Frontier Service 25 officers would be required for units mobilizing in connection with this. 21 of these would be drawn from the 3rd, 5th, 6th, 7th, 8th and 9th Divisions, 3 are already in the 4th Division, and 1 in the 2nd. We do not consider it advisable to reduce our strength in the Burma Division and Aden Brigade.

At the present time no more Executive Officers can be spared for the Gulf but in the cold weather when the various hill stations are closed we might possibly spare 6.

One junior officer is required for the Hospital Ship "Takada".

Our strength when these reinforcements leave for the Gulf and the Hospital Ship will be 206 as against a normal establishment of 333.

Indian Subordinate Medical Department.

(a) Assistant Surgeon Branch.

The present strength of the I. S. M. D. in India is 292.

Question 2-

There are 74 with "D" Force and 10 now *en route* and 4 will be sent with a British Section of a General Hospital now being mobilised. These will make a total of 88 Assistant Surgeons with the Force.

In case of special mobilization for Frontier Service, 56 Assistant Surgeons would be required for units mobilising in connection with this and these would be drawn from the various divisions except Burma and Aden Brigade which it is not considered advisable to reduce.

At the present time no more Assistant Surgeons can be spared for the Gulf.

Our present strength is 292 as against a normal establishment of 436.

There are 101 in reserve in civil employ but it is doubtful if any of these could be given up.

(b) Sub-Assistant Surgeons Branch.

The minimum requirements for India in the event of extensive mobilization is 442. There are available at present 508, which appears to give a satisfactory surplus, until this total is examined, as it is in Statement D.

Out of this total, only 99 are Military Sub-Assistant Surgeons fit for active service. No less than 108 Military Sub-Assistant Surgeons are unfit for such service. 22 more are retired men doing duty temporarily, and 279 are Civil Sub-Assistant Surgeons.

The position as regards these subordinates is little short of desperate.

The Government of India have recently offered really generous terms to Civil Sub-Assistant Surgeons who volunteer for Active Service, and it is hoped to obtain some for the Frontier Divisions in India and as reinforcements for the Overseas Forces, but the hope is not very bright. These men are drawn from a stay-at-home class and anything which interferes with the pursuit of money and ease is studiously avoided by them.

24-6-15.

H. HENDLEY.

STATEMENT "A."

Statement showing the minimum number of Indian Medical Service Officers required in India at the present moment.

Division or Brigade.	D. A. D. M. S. (Mobn.)	Staff Surgeons.	For Corps units mobilizing or moving in relief in connection with the Frontier Scheme.	For Field Ambu- lances mobilized or to be mobilized according to Frontier Scheme.	For Corps Units Depôts, War Hospitals that will remain in various stations after mobilization.	Total.
1st (Peshawar) Division ...	1	—	12	*11	9	33
2nd Rawalpindi Division ...	—	—	13	12	4	29
3rd (Lahore) Divisional Area ...	—	—	3	3	8	14
4th (Quetta) Division ...	1	—	7	5	6	19
5th (Mhow) Division ...	—	—	2	3	7	12
6th (Poona) Divisional Area ...	—	1	—	—	5	6
7th (Meerut) Division ...	1	—	6	2	9	18
8th (Lucknow) Division ...	1	—	1	—	5	7
9th (Secunderabad) Division ...	1	2	3	—	4	10
Burma Division ...	—	—	—	—	6	6
Kohat Brigade ...	—	—	6	*3	2	11
Derajat Brigade...	—	—	1	*3	2	6
Bannu Brigade ...	—	—	5	*3	4	12
Total ...	5	3	59	45	71	183

• With Field Ambulances already mobilized.

Question 2.

Question 2.

STATEMENT "B."

Statement showing the number of Indian Medical Service Officers remaining in Military employment in India (excluding the 5 Officers doing duty as R. M. T. O. and on Ambulance trains in India).

Division.				Number remaining.	Remarks.
1st (Peshawar) Division	...	...	...	30	3 are unfit for Field Service.
2nd (Rawalpindi) Division	...	...	...	19	
3rd (Lahore) Divl. Area	...	...	...	11	
4th (Quetta) Division	...	...	...	20	
5th (Mhow) „ ...	...	...	...	13	
6th (Poona) Divl. Area	...	...	...	14	
7th (Meerut) „ „	...	...	...	14	
8th (Lucknow) Division	...	...	...	11	1 unfit for Field Service.
9th (Secunderabad) Division	...	...	...	11	Ditto ditto.
Burma Division	...	...	...	7	
Kohat Brigade	...	...	...	7	
Derajat „	...	...	...	6	
Bannu „	...	...	...	6	
Total				169	
Deduct 3 under orders for Hospital Ship "Takada"				3	
				166	
Add 32 Officers released by last call on Civil				32	
Total				198	
Add for A. Ds. of M S.				8	
				206	

STATEMENT "C."

Question 2.

Statement showing the troops that would remain in the various stations in India after mobilization for the protection of the North-West Frontier and the consequent moves had been carried out; also the number of officers of the Indian Medical Service that would be required for station duties.

Station.	Troops that would remain.	Number of I. M. S. Officers required for station duties.
Chakdara ...	{ Dett. Frontier Garrison Artillery ... Wing 112th Infantry ...	Nil.
Chitral ...	2 Coys. Indian Infantry ...	1 for General duty.
Dargai ...	1 Indian Infantry ...	1
Kila Drosh ...	{ 1 Section Mountain Battery ... 1 Section, Company, Sappers and Miners ... 1 Indian Infantry ...	1
Malakand ...	{ Dett. Frontier Garrison Artillery ... 1 Indian Infantry ...	1
Peshawar ...	{ 2 Batteries, R. F. A. ... Dett. Ammunition Column, R. F. A. ... Dett. Frontier Garrison Artillery ... 1 Battalion, British Infantry ... 1 Regiment, Indian Infantry ... 3 Depôts, Indian Infantry ...	2
Abazai ...	{ 1 Squadron, Indian Cavalry ... 1 Company, Indian Infantry ...	Nil.
Cherat ...	Dett. Indian Infantry ...	Nil.
Jamrud ...	{ Dett. Frontier Garrison Artillery ... Dett. Indian Infantry ...	Nil.
Shabkadar ...	Dett. Indian Infantry ...	Nil.
Nowshera ...	{ R. A. Depot ... 1 Battalion, British Infantry ... 4 Depôts, Indian Infantry ...	2
Mardan ...	{ 1 Depot Indian Cavalry ... 1 Depot Indian Infantry ...	1
Risalpur ...	2 Indian Cavalry Depôts ...	Nil.
Total 1st Division ...		9
Attock ...	Nil.	Nil.
Campbellpore ...	Nil.	Nil.
Changla Gali ...	Nil.	Nil.
Bara Gali ...	Nil.	Nil.
Khyra Gali ...	Nil.	Nil.

STATEMENT "C"—*contd.*

Station.	Troops that would remain.			Number of I. M. S. Officers required for station duties.
Rawalpindi	{ 1 Battery, R. F. A. ... 1 Company, R. G. A. ... 1 Indian Infantry Regiment ... 1 Depot, Indian Cavalry ... 1 Depot, Indian Infantry ... }	...	2 (excluding 1 who arrives with Infantry Regiment from Dacca).
Upper Barian	Nil ...	...	Nil.
Ghora Dhaka	Nil ...	...	Nil.
Kalabagh	Nil ...	...	Nil.
Khanspur	1 Battery, R. G. A. ...	...	Nil.
Khuldana	1 Battalion, British Infantry ...	...	Nil.
Gharial	Nil ...	...	Nil.
Upper Gharial	Nil ...	...	Nil.
Upper Topā	Nil ...	...	Nil.
Abbottabad	{ 8 Depots, Indian Infantry ... 4 Depots, Mountain Batteries ... }	...	1
Jhelum	{ 1 Indian Cavalry Regiment ... 4 Depots, Indian Infantry ... }	...	1 (arrives with Cavalry Regiment from Peshawar).
Sialkot	{ 4 Depots, Indian Cavalry ... 1 Depot, Indian Infantry ... }	...	1
* Total 2nd Division				4
Ferozepore	{ 1 Battery, R. F. A. ... 1 Company, R. G. A. ... 1 Battalion British Infantry ... 3 Depots, Indian Infantry ... }	...	Nil (R. A. M. C. Officer to hold charge of I. T.)
Lahore	{ 2 Batteries, R. F. A. ... ½ Company, R. G. A. ... 1 British Infantry ... 1 Indian Infantry Regiment ... 1 Depot, Indian Cavalry ... 2 Depots, Indian Infantry ... Special War Hospital, Indian Troops ... }	...	2
Multan	{ 1 Battery, R. F. A. ... 1 Battery, R. G. A. ... 1 British Infantry ... 1 Squadron, Indian Cavalry ... 1 Indian Infantry Regiment ... 2 Depots, Indian Infantry ... }	...	1

Station.	Troops that would remain.				Number of I. M. S. Officers that would be required.
Ambala ...	{	R. A. Depot ...	...	...	2
		Detachment Indian Infantry ...	...	...
		4 Depots, Indian Cavalry ...	...	...
		2 Depots, Indian Infantry ...	...	...
		Special War Hospital, Indian Troops ...	...	...
Amritsar ...	{	$\frac{1}{2}$ Company, R. G. A. ...	...	...	Nil.
		2 Companies, British Infantry ...	...	...
Bakloh ...		2 Depots, Indian Infantry ...	...	...	1
Dagshai ...		Nil ...	...	...	Nil.
Dalhousie ...		9 Companies, British Infantry ...	...	...	Nil.
Dharamsala ...		2 Depots, Indian Infantry ...	...	...	1
Jullundur ...	{	1 Depot, Indian Cavalry ...	...	...	1
		4 Depots, Indian Infantry ...	...	...
Jutogh ...		Nil ...	...	...	Nil.
Kasauli ...		Details ...	...	...	Nil.
Subathu ...		Nil ...	...	...	Nil.
Sclon ...		Nil ...	...	...	Nil.
Simla ...		Nil ...	...	...	Nil.
Total 3rd Division				...	8
Lansdowne ...		4 Depots, Indian Infantry ...	...	...	1
Meerut ...	{	1 Battery, R. F. A. ...	...	...	1
		1 Depot, Indian Cavalry ...	...	...
		2 Depots, Indian Infantry ...	...	...
		Special War Hospital, Indian Troops ...	...	...
Rurki ...	{	1 Battery, R. G. A. ...	...	...	1
		3 Companies, Sappers and Miners ...	...	...
		Special War Hospital, Indian Troops ...	...	...
Delhi ...	{	1 Company R. G. A. ...	...	...	1
		4 Companies, British Infantry ...	...	...
		1 Indian Cavalry Regiment ...	...	...
		1 Depot, Indian Infantry ...	...	...
Agra ...	{	$\frac{1}{2}$ Company, R. G. A. ...	...	...	1 (who arrives with Cavalry Regiment from Bangalore).
		$3\frac{1}{2}$ Companies, British Infantry ...	...	...
		1 Indian Cavalry Regiment ...	...	...
		2 Depots, Indian Infantry ...	...	...
Chakrata ...		$4\frac{1}{2}$ Companies, British Infantry ...	...	...	Nil.
Dehra Dun ...	{	1 Indian Infantry ...	...	...	2
		5 Depots, Indian Infantry ...	...	...
		Special War Hospital, Indian Troops ...	...	...

Question 2.

Station.	Troops that would remain.				Number of I. M. S. Officers that would be required.
Kalana	Detachments of British Units				<i>Nil.</i>
Muttra	<i>Nil</i>				<i>Nil.</i>
Almora	1 Depot, Indian Infantry				1
Bareilly	1 Battery, R. F. A.				1
	1 Battery, British Infantry				
	2 Depots, Indian Cavalry				
	2 Depots, Indian Infantry				
Chaubattia	<i>Nil</i>				<i>Nil.</i>
Fatehgarh	3 Depots, Indian Infantry				1
Ranikhet	Detachments British Units				<i>Nil.</i>
Total 7th Division					9
Allahabad	1 Battery, R. F. A.				1 (excluding 1 who arrives with Regiment from Trichinopoly).
	1 Company, R. G. A.				
	1 Battalion, British Infantry				
	2 Squadrons, Indian Cavalry				
	1½ Indian Infantry Regiments				
Special War Hospital, Indian Troops					
Benares	Detachment British Infantry				<i>Nil.</i> (An R. A. M. C. Officer will hold charge of Depots).
	2 Depots, Indian Infantry				
Cawnpore	1 Battery, R. G. A.				<i>Nil.</i>
	2 Depots, Indian Infantry				(An R. A. M. C. Officer will hold collateral charge of depots).
Fyzabad	2 Companies, British Infantry				Ditto.
	2 Depots, Indian Infantry				
Lucknow	1 Battery, R. F. A.				2
	2 Battalions, British Infantry				
	1 Depot, Indian Cavalry				
	4 Depots, Indian Infantry				
	Special War Hospital, Indian Troops				
Fort William	1 Company, R. G. A.				1
	1 Battalion, British Infantry				
	1 Squadron, Indian Cavalry				
	Section, Sappers and Miners				
Alipore	1 Indian Infantry Regiment				<i>Nil.</i>
	<i>Nil.</i>				
Barrackpore	1 Battery, R. F. A.				<i>Nil.</i>
	Detachment, British Infantry				
Buxa Duar... ..	<i>Nil.</i>				<i>Nil.</i>
Dacca	<i>Nil.</i>				<i>Nil.</i>

Station.	Troops that would remain.				Number of I. M. S. Officers required for station duties.
Dibrugarh	Nil.			Nil.
Dinapore	{	1 Battery, R. F. A. ...	...	} Nil.
			1 Battalion, British Infantry ...	..
			1 Depot, Indian Infantry ...	...
Dum Dum		Detachment, British Infantry ...	...	Nil.
Jalapahar		Detachments, British Units ...	...	Nil.
Lebong		Detachments, British Units ...	...	Nil.
Gantok		Nil.		Nil.
Gyantse		Detachment, Indian Infantry ...	...	Nil.
Manipur		Nil.		Nil.
Shillong		1 Indian Infantry ...	...	1
Takdah		1 Depot, Indian Infantry ...	...	Nil.
Total 8th Division ...					5
Fort Lockhart	{	Detachment, Frontier Garrison Artillery ...	...	} Nil.
			Detachment, 31st Cavalry ...	...
Hangu		1 Depot, Indian Infantry ...	...	Nil.
Kohat	{	1 Squadron, Indian Cavalry ...	...	} 1
			1 Depot, Indian Cavalry ...	...
			4 Depots, Indian Infantry ...	...
Parachinar	{	1 Squadron, Indian Cavalry ...	...	} Nil.
			1 Section, Mountain Battery ...	...
Thal	{	1 Squadron, Indian Cavalry ..	...	} 1
			4 Companies, Indian Infantry ...	...
Bannu	{	Detachment Frontier Garrison Artillery ...	...	} 1
			2 Depots, Indian Infantry ...	...
Miranshah		2 Depots, Indian Infantry ...	...	2
Dera Ismail Khan	{	1 Depot, Indian Cavalry ...	...	} 1
			1 Depot, Mountain Battery ...	...
			3 Depots, Indian Infantry ...	...
Tonk	{	1 Depot, Mountain Battery ...	...	} 3
			3 Indian Infantry Regiments ...	...
Total Frontier Brigades ...					8
Chaman		1 Depot, Indian Infantry ...	...	Nil.
Fort Sandeman		1 Indian Infantry Regiment ...	...	1

Question 2.

Station.	Troops that would remain.				Number of I. M. S. Officers required for station duties.
Loralai	{	1 Indian Cavalry Regiment ...	...	1
			1 Indian Infantry Regiment ...	...
Peshin		Depot, Indian Infantry ...	...	Nil.
		{	1 Battery, R. G. A. ...	...	2
			2 British Infantry Battalions ...	...
Quetta		1 Mountain Battery ...	...
			2 Depots, Mountain Batteries ...	...
		{	1 Depot, Indian Cavalry ...	...	1
			5 Depots, Indian Infantry ...	...
Hyderabad		2 Depots, Indian Infantry ...	...	1
		{	2 Companies, R. G. A. ...	...	1
			2 Companies, British Infantry ...	...
Karachi		Section, Sappers and Miners ...	...
			1 Indian Infantry Regiment ...	...
		{	2 Depots, Indian Infantry ...	...	6
Total 4th Division				...	
Mhow	{	3 Batteries, R. F. A. ...	...	1
			2 British Infantry ...	...
		{	3 Depots, Indian Infantry ...	...	Nil.
Ahmedabad		1 Company, Indian Infantry ...	...
Agar		1 Depot, Indian Cavalry ...	...	Nil.
Baroda		1 Indian Infantry Regiment ...	...	1
Goona		1 Indian Cavalry Regiment ...	...	1
Indore		Detachment, British Infantry Regiment ...	...	Nil.
Jhansi	{	Special War Hospital, Indian Troops ...	...	1
			1 Indian Cavalry Regiment ...	...
		{	4 Depots, Indian Infantry ...	...	Nil.
Nowgong		1 Depot, Indian Infantry ...	...
		{	2 Batteries, R. F. A. ...	...	1 (Arrives with Indian Infantry Regiment from Secunderabad).
			R. A. Depot ...	...
Jubbulpore		1 Indian Infantry Regiment ...	...
			1 Depot, Indian Cavalry ...	...
		{	3 Depots, Indian Infantry ...	...	Nil. (An R. A. M. C. Officer could hold collateral charge of the Indian Troops.)
Kamptee		1 British Infantry Battalion ...	...
		{	1 Squadron, Indian Cavalry ...	...
			Depot, Indian Cavalry ...	...

Station.	Troops that would remain.			Number of I. M. S. Officers required for station duties.
Pachmari	1 Company, British Infantry ...	...	<i>Nil.</i>
Saugor	3 Depots, Indian Cavalry ...	...	1
	...	2 Depots, Indian Infantry ...	...
Sitabuldi	Detachment British Infantry ...	...	<i>Nil.</i>
Ajmere	1 Depot, Indian Infantry ...	...	<i>Nil.</i>
Mount Abu	Detachments, British Troops ...	...	<i>Nil.</i>
Nasirabad	1 Depot, British Infantry ...	...	1 (Arrives with Indian Infantry Regt from Rawalpindi).
	...	1 Indian Infantry Regiment ...	...
	...	1 Depot, Indian Infantry ...	...
Neemuch	1 Depot Indian Cavalry ...	...	<i>Nil.</i>
Total 5th Division			...	7
Ahmednagar...	...	1 British Infantry Regiment ...	...	<i>Nil.</i> (An R. A. M. C. Officer could hold collateral charge of Indian Troops).
	...	1 Depot, British Infantry ...	...
	...	2 Depots, Indian Infantry ...	...
Belgaum	1 Depot, British Infantry ...	...	1
	...	3 Companies, Indian Infantry ...	...
	...	2 Depots, Indian Infantry ...	...	<i>Nil.</i>
Kirkee	3 Batteries, R. F. A. ...	...
	...	R. A. Depot ...	...
	...	Detachment British Infantry ...	...
	...	3 Companies, Sappers and Miners	...	2
	...	Special War Hospital, Indian Troops	...	
	...	2 Battalions, British Infantry ...	...
Poona	1 Depot, British Infantry ...	...
	...	3 Squadrons, Indian Cavalry ...	...
	...	1 Indian Infantry Regiment ...	...	<i>Nil.</i>
	...	2 Depots, Indian Infantry ...	...
Satara	Detachment Indian Infantry ...	...	<i>Nil.</i>
	...	Special War Hospital, Indian Troops	...	1
	...	3 Companies, R. G. A. ...	...
Bombay	1 British Infantry Battalion ...	...
	...	Section Sappers and Miners ...	...	<i>Nil.</i>
	...	5 Companies, Indian Infantry ...	...
Deolali	Detachment British Infantry ...	...	<i>Nil.</i>
Santa Cruz	2 Companies, Indian Infantry ...	...	1
Total 6th Division			...	5

Question 2.

Station.	Troops that would remain.		Number of I. M. S. Officers required for station duties.
Secunderabad	1 British Cavalry Regiment ... ..	..	3
	2 Indian Cavalry Regiments ... ..	...
	3 Batteries, R. F. A. ... ..	...
	2 British Infantry Battalions ... ..	...
	1 Indian Infantry Regiment ... ..	...
	Special War Hospital, Indian Troops ...		
Bangalore	3 Batteries, R. F. A. ... ..	...	1
	1 British Infantry Battalions ... ..	...
	1 Depot, British Infantry ... ..	...
	2 Companies, Sappers and Miners ... ..	...
	1 Depot, Indian Cavalry ... ..	...
	2 Depots, Indian Infantry ... ..	...
Calicut	Detachment British Infantry ... ..	..
Madras	3 Companies, British Infantry ... ..	...	Nil.
Malapuram	Detachment British Infantry ... ..	...	Nil.
Ootacamund	Detachment 73rd Carnatic Infantry ... ..	...	Nil.
St. Thomas' Mount	1 Company, British Infantry ... ..	...	Nil.
	1 Indian Infantry Regiment ... ..	...
Trichinopoly	1 Depot, Indian Infantry ... ..	...	Nil.
Trivandrum	Detachment Indian Infantry ... ..	...	Nil.
Wellington	Detachment British Infantry ... ..	...	Nil.
	Total 9th Division		4
Bhamo	1 Indian Infantry Regiment ... ..	...	1
Mandalay	2 Companies, British Infantry ... ..	...	1
	1 Company, Sappers and Miners ... ..	...
	2 Indian Infantry Regiments ... ..	...
Maymyo	6 Companies, British Infantry ... ..	...	1
	1 Mountain Battery ... ..	...
	1 Indian Infantry Regiment ... ..	...
Shwebo	2 Companies, British Infantry ... ..	...	Nil.
Port Blair	Detachment British Infantry ... ..	...	1
	Detachment Indian Infantry ... ..	...
Meiktala	2 Companies, British Infantry ... ..	...	Nil.
	2 Companies, R. G. A. ... ..	...
Rangoon	4 Companies, British Infantry ... ..	...	1
	Section Sappers and Miners ... ..	...
	1 Indian Infantry Regiment ... ..	...
Thayetmyo	Detachment 91st Punjabis ... ..	...	1
	2 Companies, Indian Infantry	
	Total Burma Division		6

STATEMENT "D."

Sub-Assistant Surgeons, I.S.M.D.

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Question 2.

Divisions, Divisional Areas and Independent Brigades.	Required for Corps units mobilizing or moving in relief.	Required for Field Ambulances.	Required for Corps, Units Depots, War Hospitals, etc.	Total minimum required.	AVAILABLE.				Total.
					Military fit.	Military unfit.	Retired.	Civil.	
1st (Peshawar) Division	16	12	27	55	21	4	...	29	54
2nd (Rawalpindi) "	17	15	17	49	13	10	5	28	56
3rd (Lahore) Divisional Area	3	3	34	40	4	10	10	21	43
4th (Quetta) Division	11	8	25	44	12	6	2	36	56
5th (Mhow) "	2	3	36	41	...	10	2	27	39
6th (Poona) Divisional Area	...	...	25	25	2	14	...	23	39
7th (Meerut) "	8	...	33	41	...	11	3	30	44
8th (Lucknow) Division	2	...	35	37	1	12	...	32	45
9th (Secunderabad) Division	6	...	26	32	...	15	...	19	34
Burma Division	...	...	20	20	1	6	...	14	21
Kohat Brigade	8	4	7	19	13	1	...	5	19
Bannu "	6	4	5	15	11	3	...	5	19
Derajat "	4	4	7	15	12	6	...	10	28
Aden "	...	...	9	9	9	...	...	...	9
Total	83	53	306	442	99	108	22	279	508

Statement showing the minimum requirements of Royal Army Medical Corps Officers in India.

Division.	Corps units mobilizing or moving in connection with Frontier Scheme.	For Field Ambulances mobilizing in connection with Frontier Scheme.	For Station duty with troops remaining.	Total.
1st (Peshawar) Division ...	4	4	11	19
2nd (Rawalpindi) Division ...	3	5	16	24
3rd (Lahore) Divisional Area ...	3	2	17	22
4th (Quetta) Division ...	2	4	12	18
5th (Mhow) Division ...	2	2	14	18
6th (Poona) Divisional Area ...	—	—	16	16
7th (Meerut) Divisional Area ...	2	1	13	16
8th (Lucknow) Division ...	1	—	23	24
9th (Secunderabad) Division ...	—	—	21	21
Burma Division ...	—	—	11	11
Aden Brigade ...	—	—	7	7
Total ...	17	18	161	196

Statement showing the minimum number of Assistant Surgeons required in India.

Division.		Corps units mobilizing or moving in connection with Frontier Scheme.	For Field Ambulances mobilizing in connection with Frontier Scheme.	For Station duty with troops remaining.	Total.
1st (Peshawar) Division	...	9	12	12	33
2nd (Rawalpindi) "	...	10	13	16	39
3rd (Lahore) Divisional Area	...	5	4	21	30
4th (Quetta) Division	...	6	8	13	27
5th (Mhow) "	...	3	4	22	29
6th (Poona) Divisional Area	...	...	2	19	21
7th (Meerut) "	...	4	...	21	25
8th (Lucknow) Division	...	1	...	31	32
9th (Secunderabad) "	...	...	...	29	29
Burma Division	...	...	...	11	11
Aden Brigade	...	...	...	6	6
Total		38	43	201	282

Question 2.

	R. A. M. C.	I. M. S.	A. S.	S. A. S.
<i>Establishment of Overseas Forces.</i>				
Initial requirements of Overseas Forces ...	135	445	215	778
Numbers with the Overseas Forces ...	111	453	329	566
Deficiency ...	24	+8	+114	212
<i>Establishment in India.</i>				
Remaining in India in Military employ ...	197	213 (including final call).	291	508*
Minimum requirements in India ...	196	196	282	442
Balance in India to meet deficiencies of Overseas Forces and reinforcements ...	1	17	9	66
<i>Authorised Establishment.</i>				
Authorised establishment <i>vide</i> Army Tables, Medical ...	320	725	705	870
At duty on rolls ...	308	†666	620	1074
Difference ...	12	61	85	+204
Still in Civil employ ...	...	120	99	...
<i>Reinforcements.</i>				
Required as reinforcements at 2 per cent per mensem on the numbers with the overseas Forces.	3	9	6	11

*Includes 279 Civil Sub-Assistant Surgeons. 131 of the Military Sub-Assistant Surgeons are physically unfit for Field Service.

N. B.—The above figures do not include Officers of the Army Medical Service. Our authorised establishment of these Officers is 13, and our present establishment is 9.

†Includes 72 Temporary Lieutenants.

54 Now overseas.

12 Willing to go Overseas.

6 Unwilling to go Overseas.

Telegram No. H.-6022, dated 3rd July 1915.

From—H. E. the Viceroy (Army Department).

To—The Secretary of State for India.

The following is an explanation of our present position with regard to the military medical services in India, and the difficulties we experience in meeting demands for reinforcements overseas. 308 R.A.M.C. Officers, 666 I.M.S. Officers, 620 Assistant Surgeons and 1074 Sub-Assistant Surgeons are employed on military duty. Of these 111 R.A.M.C. Officers, 453 I.M.S. Officers, 329 Assistant Surgeons and 566 Sub-Assistant Surgeons are at present employed with the overseas forces. The minimum requirements in India are 196 R.A.M.C. Officers, 196 I.M.S. Officers, 282 Assistant Surgeons and 442 Sub-Assistant Surgeons. This leaves a balance of 1 R.A.M.C. Officer, 17 I.M.S. Officers, 9 Assistant Surgeons and 66 Sub-Assistant Surgeons. With regard to R.A.M.C.

Officers, we have no resources in India, as applicants for appointments as temporary Lieutenants in this Corps desire to proceed to Europe and are not willing to accept service elsewhere. In the case of the Indian Medical Service our final call on the reserve in Civil employment has been made, but from amongst those on deputation some 15 or 16 more officers can be secured. 72 temporary Lieutenants, Indian Medical Service, of whom 60 are Indian, have been engaged. Of these 54 are employed overseas leaving a balance of 18 of whom only 12 are willing to proceed on field service. Applicants, who possess the necessary qualifications and who are willing to proceed on field service overseas as temporary Lieutenants of the I.M.S., are not now available. There are still 99 Military Assistant Surgeons in civil employ. Of these the local Government can be pressed for the surrender of 74. Out of the balance of 508 Sub-Assistant Surgeons at duty, 279 are Civil Sub-Assistant Surgeons not liable for field service and 131 are Military Sub-Assistant Surgeons who are either retired men who have been re employed or are physically unfit for field service. This leaves only 98 Military Sub-Assistant Surgeons who are physically fit to meet emergencies in India. In connection with our difficulties with regard to this class of men we would invite a reference to our telegram No. H.-5409 dated 8th June 1915. So far the result of the inducements offered to Civil Sub-Assistant Surgeons to accept liability for field service does not appear promising. Calculated at 2 per cent per mensem on the numbers with the overseas forces our monthly requirements to meet demands for reinforcements from all the Indian Expeditionary Forces Overseas are R. A. M. C. Officers 3, I. M. S. Officers, 9 Assistant Surgeons 6, and Sub-Assistant Surgeons 11. We presume that the deficiencies in R.A.M.C. Officers with Forces "A", "B" and "E" are being made good by the War Office. It will, however, still be necessary for us to furnish 1 R. A. M. C. Officer per mensem as a reinforcement for Force "D". From the above it will be seen that we have at present only one R. A. M. C. Officer available to meet demands from Force "D" for reinforcements, and as the authorised strength of this Force is already deficient by 11 Officers chiefly on account of the recent expansion of the British General Hospital from 250 to 500 beds, which increased the authorised establishment by 10 R.A.M.C. Officers, we request that arrangements may be made at an early date for the despatch of 16 such Officers to India to enable us to meet the existing deficiency and provide reinforcements for a period of six months for the Force. It will be noted that our position is a very difficult one to solve as regards Sub-Assistant Surgeons.

III.

*Question :—*With reference to paragraph 17 of the note* and the statement therein made that certain officers of the R. A. M. C. were expected to arrive in India during August and that on their arrival steps would be taken to make good the deficiency in the force; when were these additional officers despatched to Mesopotamia and what was the number so sent?

* Paragraph 17 of Note on Medical Arrangements, Indian Expeditionary Force "D."

17. On the 27th July 1915, a statement was received from the Deputy Director, Medical Services, showing the numbers of the medical personnel present with the Force, as compared with the numbers authorised. According to this statement there was a deficiency of 13 R. A. M. C. officers, 12 Indian Medical Service officers, 1 Assistant Surgeon and 47 Sub-Assistant Surgeons, but on analysis with reference to data available here, it was estimated that there was a deficiency of 13 R. A. M. C. officers and 30 Sub Assistant Surgeons, and an excess establishment of Indian Medical Service officers and 5 assistant surgeons. The Deputy Director, Medical Services, was informed accordingly, and, in the circumstances, was asked to verify the number of Indian Medical Service officers Assistant Surgeons and Sub-Assistant Surgeons with the Force. He was also informed that certain officers of the R. A. M. C. were expected to arrive in India during August, and that, on their arrival, steps would be taken to make good the deficiency in the Force. In reply, the Deputy Director, Medical Services, furnished a statement showing that the deficiency was:—

In Medical Service officers, 17 (an increase of 5
owing to 4 officers
having been inva-
lided, and one de-
tailed for duty on
the Hospital Ship
"Madras").

Assistant Surgeon ... 1.
Sub-Assistant Surgeons ... 50.

The deficiency in Indian Medical Service officers and sub-assistant surgeons was largely due to the increase of the number of beds in the Indian General Hospital from 600 to 1,000, which admitted of an additional establishment of 10 Indian Medical Service officers, and 15 sub-assistant surgeons.

The Deputy Director, Medical Services, was then informed that:—

- (i) Steps were being taken to make good the deficiency of Indian Medical Service officers.
- (ii) According to data available here, 67 Assistant Surgeons were serving with the Force, and not 64 as stated by him.
- (iii) 12 Sub-Assistant Surgeons would be despatched at the first public opportunity, and that dressers would be sent as they become available. Nominal rolls of Assistant Surgeons and Sub-Assistant Surgeons, which had been compiled from the returns in this office, were forwarded to him for favour of check and return.

*Answer :—*The telegram to the Secretary of State referred to in question 2 contains the application for 16 R. A. M. C. officers to make good the deficiencies in Force "D" and to provide reinforcements for 6 months for the Force as then constituted.

By the time these 16 officers arrived Force "D's" deficiencies were 11 R. A. M. C. officers and these were despatched as follows:—

On 7th September	...	...	1 R. A. M. C. officer.
On 9th ditto	...	...	2 ditto
On 10th ditto	...	...	8 ditto
TOTAL ...			11 ditto

Question.—With reference to the statement in the same paragraph that steps were being taken to remedy the shortage in I. M. S. officers and Sub-Assistant Surgeons, when were officers actually sent to Mesopotamia to meet the deficiency and what was the number so sent? Was any action taken between July and October to meet the requirements of the Expeditionary Force?

Answer.—The shortage referred to here as existant on, 18th July (received 27th July), was:—

I. M. S. officers	...	...	...	17
Assistant Surgeon	...	...	...	1
Sub-Assistant Surgeons	...	...	...	50

The position at this period as regards reserve of Medical personnel in India has been dealt with under question (2).

I. M. S. officers.—Our total reserve of 33 had been reduced to 23 by the despatch of the 10 I. M. S. officers on 2nd July 1916, and as stated in the telegram to the Secretary of State the supply of Temporary Lieutenants had at that time ceased. From this 23, 17 more were to be taken, and in August 1915, 2 officers were despatched, followed by 5 in September.

Thereafter, casualties were replaced as they occurred, and the mobilization of new Medical Units* for the 4th† Cavalry Brigade the 34th, 35th and later the 36th Brigades, prevented any steps being taken to make good the 10 officers still deficient on "D's" estimate. A statement of I. M. S. officers supplied between October and December for replacements and new units is attached.

*4th C. Brigade, No. 18 Combined C. F. A.
 34th " No. 19 }
 35th " No. 20 } Combined F. As.
 36th " No. 21 }

† Now amalgamated with the 6th Cavalry Brigade.

Assistant Surgeons.—This shortage was not accepted by us.

Sub-Assistant Surgeons.—Shortage stated as 50.

Nothing could be done to relieve this positions between July and October. The scheme for employment of dressers was sanctioned by Government of India on 23rd August and involved recruitment and three months' training of the men obtained. None of these were, therefore, available between July and October.

As regards Sub-Assistant Surgeons themselves, none could be supplied till November, when 10 having newly passed out of College an equal number were released for "D."

List of Indian Medical Service Officers who proceeded to Mesopotamia, during June to September 1915.

Major J. L. Marjoribanks.	...	...	...	(Temporary)
" Tuke.	...	...	...	( " )
" Scroggie.	...	...	...	( " )
Captain M. Purvis.	...	...	...	( " )
" F. S. Smith.	...	...	...	( " )
" Puri.	...	...	...	( " )
" Sodhi.	...	...	...	( " )
Lieutenant F. S. Vajifdar	...	...	...	( " )
" V. M. Kaikini	...	...	...	( " )
" P. M. Antia	...	...	...	( " )
" M. M. Cowasjee	...	...	...	( " )
" Paul	...	...	...	( " )
" Forbes	...	...	...	( " )
" Mehta	...	...	...	( " )
" Patel	...	...	...	( " )
" Ubhaya	...	...	...	( " )
" Mahamadi...	...	...	...	( " )

Question 4. *List of Indian Medical Service Officers who proceeded to Mesopotamia during October to December 1915.*

Lieutenant-Colonel	...	...	...	F. W. Gee.
"	...	...	...	D. H. McD. Graves.
"	...	..	...	F. H. Watling.
Major	...	...	...	P. K. Chitale.
"	...	...	...	G. J. G. Young.
"	...	...	...	W. H. Leonard.
"	...	...	...	H. B. Steen.
"	...	...	...	W. S. Patton.
"	...	...	...	H. H. Broome.
"	...	...	...	T. E. Watson.
Captain	...	...	...	W. Gillit.
"	...	...	...	J. A. Shorten.
"	...	...	...	L. A. H. Lack.
"	...	...	...	J. M. Skinner.
"	...	...	...	G. E. Malcomson.
"	...	...	...	A. P. G. Lorimer.
"	...	...	...	A. G. Tresidder.
"	...	...	...	J. B. Tackaberry.
"	...	...	...	J. A. Sinton.
"	...	...	...	J. C. Bharucha.
"	...	...	...	C. McIver.
Lieutenant	...	...	...	S. S. Sokhey.
"	...	...	...	A. G. Cowper.
"	...	...	...	P. Savage.
"	...	...	...	T. S. Sastry.
"	...	...	...	O. R. Unger.
"	...	...	...	A. Dias. (Temporary).
"	...	...	...	A. C. Dutt. (").
"	...	...	...	R. N. Kapadia (").

V.

Question 5.

Question.—In paragraphs 95 and 40 of your report * reference is made to field ambulances sent out with additional brigades. Were any additional hospitals sent and if not why not?

Paragraphs 25 and 40 of Note in Medical Arrangement, Indian Expeditionary Force "D".

25. It was also decided that, in order that reinforcements for Indian Expeditionary "D" would be readily available if required before the arrival of the Lahore and Meerut Force Divisions, the 14th Cavalry Brigade, 1st Home Countries Brigade, R. F. A., and the 34th Orders for the organization of a Force (I. E. F. and 35th Infantry Brigades, should be concentrated. No 18 Combined Cavalry Field Ambulance was mobilized for service with the Cavalry Brigade, and No. 19 and 20 Combined Field Ambulances were mobilised for service with the Infantry Brigades. The Brigades were despatched to Mesopotamia during November and December 1915, and their respective medical units accompanied them.

40. The following additional brigades and field ambulances were mobilised in January 1916, for service with I. E. F. "D" :—

37th Indian Infantry Brigade	... No. 22 Combined Field Ambulance
41st Indian Infantry Brigade	... No. 23 Combined Field Ambulance.
42nd Indian Infantry Brigade	... No. 24 Combined Field Ambulance.

The 57th Brigade, 3 units of the 41st Brigade, one unit of 47th Brigade and Nos. 22 Orders for the Organization of a Force (I. E. F. and 24 Combined Field Ambulances were "D.") page 18. despatched in February 1916. The remainder followed during March.

Answer.—No additional Line of Communication Hospitals were sent with 4th Cavalry Brigade and 34th, 35th, 36th, 37th, 41st and 42nd Brigades.

These Brigades were mobilized without Line of Communication Troops and it was uncertain to what Divisions or operation Area they were going. General Officer Commanding, Force "D" who was in the best position to judge of his requirements, did not ask for Line of Communication Units with these Brigades. The matter, however, was considered in the Branch and the Line of Communication

Since amalgamated with 6th Cavalry Brigade. tion Units required for 4th Cavalry * Brigade and 34th and 35th Infantry Brigade were enumerated. For the reasons mentioned above and in view of the straits in which India was, these did not materialize.

The 4th Cavalry Brigade, 34th and, 35th, and later, the 36th Infantry Brigade were mobilized as an Emergency Force pending arrival in "D" of 3rd and 7th Divisions with their Line of Communication Units.

These Brigades were despatched to "D" in November and December but were expected to return on being relieved by 3rd and 7th Divisions. (Diary No. 28551).

The 37th, 41st and 42nd Brigades had no Divisional Organization. There 3 Brigades were mobilized independently for attachment to any Division in "D" and had no Line of Communication.

Telegram P., No. H-9386, dated 25th November 1915.

(Despatched 5-45 P.M.)

From—The Viceroy (Army Department).

To—The Secretary of State for India.

We have thought,

* * * temporarily with 1 brigade Territorial field artillery, 2 infantry brigades, 1 cavalry regiment, and 1 Company, Sappers and Miners. All these must return to India when replaced by the Meerut and Lahore Divisions.

Question 5.

The units going are :—

- (1) Headquarters 34th Infantry Brigade ; 1-5th Royal West Surrey Regiment ; 31st Punjabis ; 112th Infantry ; 114th Mahrattas.
- (2) Headquarters 35th Infantry Brigade ; 1-5th East Kent Regiment ; 37th Dogras ; 97th Infantry ; 102nd Grenadiers.
- (3) No. 13 Company, Sappers and Miners.
- (4) 12th Cavalry.
- (5) Headquarters 1st Home Counties Brigade, Royal Field Artillery ; 1-1st, 1-2nd and 1-3rd Sussex Batteries.

The embarkation of these units will commence on the 28th November and should be completed before the 6th of the following month.

*Question :—*What is the existing number of General, Stationary and Clearing Hospitals in Mesopotamia ? Please give details stating the numbers and accommodation of each hospital noting whether it is for British or Indian patients. Is this existing provision sufficient according to the recognized standards ? If not, what steps are being taken to supplement the establishment ? It appears from the correspondence which has been filed that revised figures for the accommodation necessary in General Hospitals were submitted by General Hathaway on the 23rd March 1916. Have these figures been examined and are they accepted as correct by the Director, Medical Services, particularly in respect of British troops ?

*Answer :—*A statement is put up of the existing number of General Stationary and Clearing Hospitals in Mesopotamia.

As regards the relation of this supply to normal allotment as laid down in Field Service Manual Medical, the position is clearly stated in a Statement of Director, Medical Services, dated 31st May 1916; wherein Sir Pardey Lukis reviews the situation with reference to the relation between actual and authorized supply of medical units, and suggests action, leaving to General Officer Commanding, Force "D," the decision as to sufficiency or insufficiency of medical units and equipment in Mesopotamia.

The telegram bearing the number Diary No. 57872, dated 5th June 1916, was issued to General Officer Commanding, Force "D," and we await his reply.

The revised figures received from Surgeon-General Hathaway on 23rd March 1916 were accepted although in excess of normal allotments, but have been modified by a telegram from Surgeon-General Trehearne dated 3rd June 1916 under "Diary No. 57784" and we await details which are being sent by post.

Medical Units with Indian Expeditionary Force "D".

Field Ambulances.

No. 1 Combined Field Ambulance	(50 beds British and 75 Indian)	125 beds
No. 3 " " "	(" ")	125 "
No. 4 " " "	(" ")	50 "
No. 131 Indian Cavalry Field Ambulance	... ..	75 "
No. 18 Combined Cavalry Field Ambulance	(25 beds British and 25 Indian)	50 "
No. 19 Combined Field Ambulance	(25 beds British and 75 Indian)	100 "
No. 20 " " "	(" ")	100 "
No. 21 " " "	(" ")	100 "
No. 22 " " "	(" ")	100 "
No. 23 " " "	(" ")	100 "
No. 24 " " "	(" ")	100 "
No. 7 British Field Ambulance	... ..	100 "
No. 8 " " "	... ..	100 "
No. 19 " " "	... ..	100 "
No. 20 " " "	... ..	100 "
No. 108 Indian Field Ambulance	... ..	100 "
No. 111 " " "	... ..	100 "
No. 112 " " "	... ..	100 "
No. 113 " " "	... ..	100 "
No. 128 " " "	... ..	100 "
No. 129 " " "	... ..	100 "
No. 130 " " "	... ..	100 "
No. 135 " " "	... ..	100 "
No. 137 " " " (2nd Sections)...	... ..	50 "
No. 39 Home Field Ambulance	... ..	150 "
No. 40 " " "	... ..	150 "
No. 41 " " "	... ..	150 "

Question 6.*British Stationary Hospitals.*

No. 23 Home Stationary Hospital	400 beds.
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Indian Stationary Hospitals.

No. 57 Indian Stationary Hospital	(100—200 beds).
No. 61 (Lahore) Indian Stationary Hospital	...	...	...	(200—400 beds).
No. 83 (Meerut) Indian Stationary Hospital	...	...	...	(200—400 beds).
Bengal Stationary Hospital	...	...	...	(200—400 beds).
At Bushire. No. 51 Indian Stationary Hospital	...	...	...	(100—200 beds).

Clearing Hospitals.

No. 16 Home Casualty Clearing Station	...	...	...	(200 beds).
No. 15 Combined Clearing Hospital	...	{ 50 British 175 Indian }	...	(200 beds).
No. 19 Combined Clearing Hospital	...	{ 50 British 175 Indian }	...	(200 beds).
No. 20 Combined Clearing Hospital	...	{ 50 British 175 Indian }	...	(200 beds).

British General Hospitals.

* This was the Hospital as originally sent with 250 beds. It was afterwards increased to 500 beds see Serial No. 36. C. W.,—16-6-16.	* No. 3(a) British General Hospital	...	(450 beds).†
	No. 2 British General Hospital	...	(200 beds).
	Section "D" No. 2 British General Hospital	...	(100 beds).
† 50 beds lost in Kut. C. W.,—16-6-16.	No. 3 British General Hospital	...	(200 beds).
	No. 32 Home General Hospital	...	(1,040 beds).

Indian General Hospitals.

No. 8 Indian General Hospital	...	...	...	(500 beds).
No. 9 Indian General Hospital	...	...	...	(900 beds).
No. 10 Indian General Hospital	...	...	...	(600 beds).
No. 12 Indian General Hospital	...	...	...	(600 beds).
No. 20 Indian General Hospital	...	...	...	(500 beds).
No. 21 Indian General Hospital	...	...	...	(500 beds).
No. 22 Indian General Hospital	...	...	...	(500 beds).
No. 23 Indian General Hospital	...	...	...	(500 beds).
No. 24 Indian General Hospital	...	...	...	(500 beds).
No. 25 Indian General Hospital	...	...	...	(500 beds).
Sections "C," "D" and "E" No. 26 I. G., H.	...	...	...	(300 beds).

Advanced Depôts of Medical Stores.

No. 3 Advanced Depôt of Medical Stores.
No. 5 Advanced Depôt of Medical Stores.
No. 6 Advanced Depôt of Medical Stores.
No. 7 Advanced Depôt of Medical Stores.
No. 8 Advanced Depôt of Medical Stores.

X-Ray Sections.

No. 1 X-Ray Section.
No. 2 X-Ray Section.
No. 3 X-Ray Section.
No. ? X-Ray Section.
No. ? X-Ray Section.
No. ? X-Ray Section.

Sanitary Sections.

No. 3 Sanitary Section.
No. 4 Sanitary Section.
No. 10 Sanitary Section.
No. 17 Sanitary Section.
No. 28 Sanitary Section.
No. 18 Sanitary Section.
No. 16 Sanitary Section.

General Medical Stores Depôts.

No. 1 General Medical Store Depôt.

Statement prepared by the Hon'ble Sir C. P. Lukis, I.M.S., dated 31st May 1916. Question 6.

1. The statement recently made as to the necessity for a Red Cross Hospital in Mesopotamia, together with the numerous complaints that have reached my ears as to the danger of breakdown on the part of Medical Officers who do not obtain sufficient intervals for sleep, caused me to look closely into the question of Medical establishments and personnel in Mesopotamia.

I give below the result of my investigations.

Field Ambulances.

These are distributed as follows :—

Cavalry Brigade	...	1 Combined Field Ambulance (3 Sections).
Lahore Division	...	2 British and 3 I. F. A.
Meerut Division	...	2 British and 3 I. F. A.
6th Division	...	1 British and 1½ I. F. A.
12th Division	...	1 British and 1½ I. F. A.
14th Division	...	¾ British and 2½ I. F. A.
15th Division	...	¾ British and 2½ I. F. A.
13th Division	...	3 F. A. (British).
<i>Extras :—</i>		1 Comb. F. A. (No 106).
"		1 Comb. F. A. (No 18).
"		1 I. F. A. (No. 108).
"		1 I. F. A. (No. 137).
"		1 Sect. I. F. A. (No. 135).

It will be seen from the above that no shortage exists as regards Field Ambulances in either the Cavalry Brigade, or the Lahore, Meerut or 13th Divisions. For obvious reasons I leave the 6th Division out of my calculations and regard its medical equipment as not being available.

In the 12th, 14th and 15th Divisions the position is as follows :—

	Normal.		Present.		Shortage.
12th Divn.	... 2 Br. & 3 I. F. A.	...	1 Br. & 1½ I.	...	1 Br. & 1½ I.
14th Divn.	... 2 Br. & 3 I. F. A.	...	¾ Br. & 2½ I.	...	1½ Br. & ¾ I.
15th Divn.	... 2 Br. & 3 I.	...	¾ Br. & 2½ I.	...	1½ Br. & ¾ I.
Total	... 6 Br. & 9 I.		2½ Br. & 6 I.		3½ Br. & 3 I.
				Br. 1	
		3½ B. F. A. & 3 I. F. A. =		14 + 12 Sections.	
		<i>Deduct</i> sections sent with extras		.. 2 — 13	
		Total shortage		— 12 + 1	
		<i>i.e.</i> , 3 B. F. As are required.			

Moreover all the combined F. As. of the Divisions mentioned, as well as No. 106, are staffed with only 4 officers to each F. A. instead of 5, or a shortage of, 9, and 16 more officers (15 R.A.M.C. and 1 I.M.S.) are required for the F. As. are brought up to the proper strength.

3. *Clearing Hospitals.*

The normal allotment I understand to be 6 Combined Clearing Hospitals for 6 mixed Divisions. Only 3 such Hospitals exist in Mesopotamia.

Three more Combined Clearing Hospitals are necessary therefore and an increase of personnel of 3 R.A.M.C. and 9 I.M.S. Officers.

4. *Stationary Hospitals.*—(British and Indian each 25 bed units expandible to 50).

The normal allotment is 1 British and 1 Indian per post on Line of Communications, and 1 British and 1 Indian at the advance base.

The present allotment is as follows :—

No. 57 Indian Stationary Hospital	...	...	200 beds.
No. 61 " " "	...	...	400 "
No. 83 " " "	...	...	400 "
No. 25 Stationary Hospital	...	...	400 "
Bengal Stationary Hospital	...	...	400 "

Question 6.

These are possibly sufficient for the present but it is probably that more will be required if the Line of Communications lengthens out with an advance towards Baghdad.

5. *General Hospitals.*

Provision is now being made for 3 080 beds for British Troops and 6,000 for Indians. No further action appears necessary here.

6. *Infectious Hospitals.*

I understand that two such Hospitals of 400 (?) beds each are being established at Amarah and Basrah respectively. We have sent personnel, but have not been asked for any medical equipment. It is presumed, therefore, that this has been obtained by depleting existing institutions.

7. *Personnel.*

I do not think one need be anxious on this point, as 97 R.A.M.C. Officers arrived in Basrah from England on 13th May 1916, and we are now supplying 24 R.A.M.C. and 24 I.M.S. Officers to staff the river and sea going transports. I have, moreover, on another file, asked for permission to telegraph to the War Office for monthly reinforcements of medical officers to enable us to meet the requirements of Force "D" without dangerously depleting our medical personnel in India.

8. *Medical Equipment.*

It is here however that I am feeling anxious as, in present conditions, the only way we could meet sudden demands from "D" would be by sending them equipment already ear-marked for possible developments on the North-West Frontier.

I suggest therefore that G.O.C., Force "D" be asked definitely (a) whether he is satisfied that the present number of Field Ambulances and Clearing Hospitals is sufficient—if not, how many more he requires (b), what are likely to be his future requirements in the matter of Stationary Hospitals should his Line of Communications lengthen out, and (c) what medical equipment he requires for the infectious Hospitals at Amarah and Basra.

On receipt of his reply, an immediate order for the preparation of the necessary equipment should be placed with the Medical Stores Department, through the D.G., I.M.S. The Medical Stores Depôts have just completed their part of the work in connection with the new General Hospitals in Mesopotamia and could, therefore, commence work at once,

(Sd). C. P. LUKIS,
31st May 1916.

Telegram No. 57872, dated 5th June 1916.

From—The Chief of the General Staff, Simla.

To—The General Officer Commanding, Force "D," Basrah.

Information is required on the following points :—

- (a) Are you satisfied that the present number of field Ambulances and Clearing Hospitals in Mesopotamia is sufficient; if not, how ; many more do you require ;
- (b) what are likely to be your future requirements in the matter of Stationary Hospitals should your lines of communication lengthen out; and
- (c) what medical equipment do you require for the infectious diseases hospitals at Basrah, and Amarah.

Letter No. H.-5-150, dated 28th January 1916.

Question 6.

From—The Director, Medical Services, Force "D,"

To—The Director, Medical Services in India.

(Through the Chief of General Staff.)

I have the honour to inform you that basing my estimate on the average of the 5 months, June to October, and taking into consideration that the Force will probably be in more healthy surroundings this year, I have calculated that there will be 7,000 patients in hospital daily in Mesopotamia—

British	...	...	...	...	...	1,800
Indian	...	...	...	...	...	5,200
						<hr/> 7,000 <hr/>

The equipment of the General Hospitals of the Force is—

British	...	...	...	...	...	1,000 beds.
Indian	...	...	...	...	...	2,400 beds.

(including Bengal Stationary Hospital)

Therefore, the equipment that is still required is—

British	...	...	...	...	...	800 beds.
Indian	...	...	...	...	...	2,800 beds.

I have asked the Deputy Director of Supply and Transport, Military Works, and Ordnance Services to obtain the full equipment for 800 beds, British, and 2,800 beds, Indian.

Will you kindly obtain the full medical equipment and personnel for—

8 Sections of a British General Hospital.

28 Sections of an Indian General Hospital.

Accommodation is being prepared in :—

Basrah—

British	...	...	...	...	...	800
Indian	...	...	...	...	...	2,000

Amarah—

British	...	...	...	...	...	1,800
Indian	...	...	...	...	...	3,200
						<hr/> 7,000 <hr/>

Kindly have the equipment addressed direct as follows,—

Basrah—

British	...	...	...	...	...	2 sections.
Indian	...	...	...	...	...	7 "

Amarah—

British	...	...	...	...	...	6 sections.
Indian	...	...	...	...	...	21 "

Question 6.

Letter No. N.-1-55, dated 2nd February 1916.

(Received in War Section, 26th February 1916.)

From—The Director, Medical Services, I. E. F. "D."

To—The Chief of the General Staff, Simla.

In forwarding the attached correspondence, I have the honour to recommend that 2 Nursing Sisters be attached to each Indian General Hospital of 500 beds, for "theatre" work.

Telegram No. H.-5-194, dated 7th March 1916.

(Despatched 7-40 P.M., received 7-45 A.M., 8th March 1916.)

From—The D. M. S., Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Your telegram No. 42165, dated 6th March there are no modifications in previous requirements. Present estimate is for 3,000 British, 6,000 Indians in General Hospitals. Writing.

Letter No. H.-5191, dated 4th March 1916.

(Received in War Section, 21st March 1916.)

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

I have the honour to state that in my opinion, for the efficient working of an Indian General Hospital, a self-contained unit of 6 sections with Commanding Officer and Staff complete is essential.

In each unit, in addition to the usual personnel :

50 A. B. C. men are required for stretcher work,

2 nurses for the operating theatre.

I have already asked for 2 nurses per 500 beds, *vide* my No. N.-1-55 dated 2nd February 1916, this therefore should now read 2 per 600 beds.

The 2 new Indian General Hospitals that have recently come from overseas consist of 6 sections each.

I now estimate that Indian General Hospitals in Mesopotamia will be required for 6,000 beds which means 10 complete units. In this connection please see my No. H.-5-150, dated 28th January 1916.

With regard to X-ray apparatus, there are now 6 in Mesopotamia : 2 with British General Hospitals, 3 with Indian General Hospitals, and 1 with the Bengal Stationary Hospital. These ought to be sufficient.

A reliable senior officer is required to act as Officer Commanding of each complete unit.

The 2 units from overseas have Officers Commanding, there are besides 10 sections in Mesopotamia, which, with your concurrence, I propose to form into 1 complete unit of 600 beds and 1 unit of 400 beds which will be increased to 600 on the receipt of more section. Officer Commanding will be required for both these units and for any subsequent group of 6 sections.

Memo. No H.-5-202, dated 10th March 1916.

(Received in War Section, 23rd March 1916.)

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff.

I have the honour to forward the attached copy of a letter No. H.-5-182, dated 17th February 1916, to the Brigadier-General, Royal Engineers, I. E. F. "D," in continuation of my telegram No. H.-5-194, dated 7th March 1916.

It will be seen from this that my estimate of requirements for general hospitals in Mesopotamia is now for British 3,000 beds, Indian 6,000 beds, total 9,000 beds.

When the British general hospitals with the 13th Division (1,040) beds Question 1. arrive, I shall have in the country—

British	...	...	2,040 beds.
Add for officers	...	...	60 „
			<hr/> 2,100

I have asked for 8 sections of a British general hospital, *vide* my No. H.-5-150, dated 28th January 1916, to the address of the Director, Medical Services in India, and when these arrive, my total in the country will be 2,900 beds.

For Indian troops—

I have	...	...	2,400 beds, including the Bengal Stationary Hospital,
and have asked for	...	...	2,800 beds, <i>vide</i> my No. H.-4-150, quoted above;
giving a total of	...	...	5,200 beds.

I am informed that with extra bedding and beds locally acquired during the past year, deficit of British 100 Indian, 800 on my estimated requirements will be fully met and for this reason I have not asked for any increase on my previous estimate of 28th January.

Owing to proper buildings for general hospitals not yet existing, I am making use of temporary accommodation such as the Customs House, Ashar, huts at Makina, etc., all in Basrah, and in houses and tents at Amarah.

It would be advisable to send some of the British and Indian sections as soon as possible to Mesopotamia to be assimilated into existing general hospitals.

In a similar manner to making Indian general hospitals self-contained units of 600 beds, *vide* my No. H.-5-191, dated 4th March 1916, I propose making the British general hospitals self-contained units of 500 beds.

I shall thus have 6 British general hospitals for the 3,000 beds required.

Memorandum No. H.-5-182, dated 17th February 1916.

From—The Director, Medical Services, Force "D".

To—The Brigadier-General, Royal Engineers, Force "D".

Reference your No. 163-E., dated 17th February 1916.

My previous estimate, No. H.-5-99, dated 21st December 1916, assumed that 7,000 daily sick would be in the general hospitals in Mesopotamia.

With an increase in the Force, this estimate is now 9,000, *vide* my No. R.-13-179, dated 11th February 1916.

Of these—

3,000 will be British.
6,000 will be Indian.

9,000

In round figures, there should be in Basrah—

British	1,000
Indian	2,500

3,500

Amarah—

British	2,000
Indian	3,500

5,500

Existing accommodation.

Basrah—

British	500	British General Hospital.
Indian	1,500	Indian General Hospital.
Indian	500	Agar Jaffas Khan.

Quest'on 6.

The Army Commander has ordered alternate huts to be removed for limiting the spread of fire, in both the British and Indian general hospitals.

The amount of bed space thus lost must be replaced by building the improved type of hut.

Therefore hutting is required for the British general hospital for 500 beds + hutting to replace those pulled down, and at the Indian general hospital for 500 beds + hutting to replace those demolished.

Hutting at Amarah—

Hutting accommodation is required for 3,000, *vide* my No. H.-5-84, dated 23rd December 1915.

When this is built, I consider it will be sufficient with the existing accommodation (2,500) to house the 5,500 sick in the general hospitals for Amarah.

The 2 new Indian General Hospitals that have recently come from overseas consist of 6 sections each.

I now estimate that Indian General Hospitals in Mesopotamia will be required for 6,000 beds which means 10 complete units. In this connection please see my No. H.-5-150, dated 28th January 1916.

With regard to X-ray apparatus, there are now 6 in Mesopotamia: 2 with British General Hospitals, 3 with Indian General Hospitals, and 1 with the Bengal Stationary Hospital. These ought to be sufficient.

A reliable senior officer is required to act as O. C. of each complete unit.

The 2 units from overseas have Officers Commanding, there are besides 10 sections in Mesopotamia, which, with your concurrence, I propose to form into 1 complete unit of 600 beds and 1 unit of 400 beds which will be increased to 600 on the receipt of more section. Officers Commanding will be required for both those units and for any subsequent group of 6 sections.

Telegram P., No. 69-75-E. C., dated 10th April 1916.

(Despatched 1 P.M., received 1-45 A.M., 11th April 1916.)

From—The G. O. C., Force "D", Basrah.

To—The Chief of the General Staff, Simla.

No. 32 British General Hospital "Assaye" arrived 8th per transport "Aronda".

This telegram which is repeated to C. G. S., India, is addressed to C. I. G. S., London.

Telegram P., No. 48244, dated 12th April 1916.

(Despatched 11-15 P.M.)

From—The Chief of the General Staff.

To—The General Officer Commanding, Force "D", Basrah.

Reference your D. M. S. H.-5-202, dated 10th March and your 69-75-E.C., dated 10th April 1916.

According to your statements, 3,000 beds are your requirements in British General Hospital accommodation.

You have now 2,040 beds owing to the arrival of 32 General Hospital and another General Hospital of 1,040 beds has been promised by War Office.

Will the above General Hospital accommodation meet all your requirement for British Troops?

Telegram P., No. H.-5-277, dated 14th April 1916.

(Despatched 4-35 P.M., received 10 A.M., 15th April 1916.)

From—The General Officer Commanding, Force "D", Basrah.

To—The Chief of the General Staff, Simla.

Reference your 48244. of 10th. Estimated requirements will be met with addition as stated by you.

Telegram No. 526-44-Q., dated 18th April 1916.

Question 6.

(Received 5-30 A.M., 19th April 1916.)

From—The General Officer Commanding, Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Reply to D. O. S., 667, 13th.

Please send sufficient for 1,500 beds, Indian General Hospital and 500 beds, British General Hospital. Addressed Gunshot, Alexandria, repeated Chief of the General Staff. Reference his 48855.

Telegram No. 49363, dated 19th April 1916.

(Despatched 11-40 A.M.)

From—The Chief of the General Staff, Simla.

To—The General Officer Commanding, Force "D", Basrah.

Reference your D. M. S. H. 5-91, dated 4th March 1916, and our 45609, dated 27th March 1916, regarding supply of 6 Indian General Hospitals. The equipments of these are being prepared as quickly as possible. Do you wish the material from the various sources of supply sent to you as it becomes available irrespective of the completeness of the unit, or do you wish the units sent complete?

As regards inferior personnel the following have been collected up to date:—

Hospital Storekeepers	...	...	...	...	6
Hospital Storekeepers Assts.	...	...	...	...	27
Tailors	...	...	...	...	6
Conservancy Sweepers	...	...	...	...	30
Bildars	...	...	...	...	7
Hired Bearers	...	...	...	...	15
Conservancy Cart Drivers	...	...	...	...	2
Muhammadan Cooks	...	...	...	...	10
Hindu Cooks	...	...	...	...	13
Muhammadan Water Carriers	...	...	...	...	4
Hindu Water Carriers	...	...	...	...	11
Sweepers	...	...	...	...	51
Washermen	...	...	...	...	9
Carpenters	...	...	...	...	8
Pakhali Bhistis	...	...	...	...	24
Writers	...	...	...	...	5

Shall we send these to you now and the rest as they are entertained, or do you wish them to accompany the equipments.

Question 6.

Telegram No. 49733, dated 20th April 1916.

(Despatched 11-45 P.M.)

From—The Chief of the General Staff, Simla.

To—The General Officer Commanding, Force "D", Basrah.

War Office intimates that at our request 97 Medical Officers and 200 R.A. M. C. rank and file are being sent to meet your deficiencies in Indian Medical Service Officers, Assistant Surgeons, Sub-Assistant Surgeons and British Nursing Orderlies.

Telegram No. 49756, dated 20th April 1916.

(Despatched 11-45 P.M.)

From—The Chief of the General Staff, Simla.

To—The General Officer Commanding, Force "D", Basrah.

Please say whether your 526-44-Q., dated 18th April regarding obtaining hospital equipment from Egypt will in any way modify the demand for General hospital equipments from India made in your H.-5-191, dated 4th March.

Telegram No. H.-5-302, dated 23rd April 1916.

(Despatched 6-10 P.M., 24th April 1916.)

(Received 4-30 A.M., 25th April 1916.)

From—The D.M.S., Force "D", Basrah.

To—The Chief of the General Staff, Simla.

Your 49756. Hospital equipment if received from Egypt complete for 1,500 Indian and 500 British beds of General Hospital will modify previous demand. 500 British and 1,000 Indian will be required to furnish isolation hospital replacements, etc. My previous demand will be diminished by 500 Indian beds.

Letter No. 10324-15 (D.M.S.-3), dated 22nd April 1916.

(Received in War Section, 25th April 1916.)

From—The Director, Medical Services in India, Simla.

To—The General Officer Commanding, Force "D."

In continuation of telegram No. 49363, dated 19th April 1916, from the Chief of the General Staff, I am directed to inform you that it is proposed to meet your remaining requirements (3,800 beds) in Indian General Hospital equipments by sending you the following :—

No. 8 Indian General Hospital (now *en route* from Egypt) 500 beds.

No. 20 Indian General Hospital (now being collected in India) 500 beds.

No. 21 Indian General Hospital (now being collected in India) 500 beds.

No. 22 Indian General Hospital (now being collected in India) 500 beds.

No. 23 Indian General Hospital (now being collected in India) 500 beds.

No. 24 Indian General Hospital (now being collected in India) 500 beds.

No. 25 Indian General Hospital (now being collected in India) 500 beds.

Sections C.D. and E. No. 26 Indian General Hospital (now being collected in India) 300 beds.

Total 3,800 beds.

Telegram P., No. 5 928, dated 28th April 1916.

Question 6.

(Despatched 9-10 P.M., received 1-40 A.M., 30th April 1916.)

From—The D. M. S., Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Owing to existing conditions and the heavy casualties that have to be dealt with, it has been found that river boat parties are absolutely necessary for the purposes of evacuating the sick and wounded at the front. These parties have to be drawn from Basrah and Amarah. Further to supplement the Hospital Ships, Hired Transports have to be taken up to evacuate the patients from Basrah. These transports are staffed from our already inadequate personnel. We are in round figures still short of the equipment and personnel for general hospitals 1,000 British and 2,500 Indian beds.

According to my estimate previously submitted. In view of the above facts, will it be possible to send soon as ever they can be got the following personnel? For 6 river boat medical units 6 officers R. A. M. C., 6 officers I. M. S., 6 Assistant Surgeons, 18 nursing orderlies, 6 Sub-Assistant Surgeons, 18 ward orderlies, 12 ward servants, Army Hospital Corps, 18 cooks Army Hospital Corps, 6 Hospital Storekeepers, 12 cooks Indian and 36 sweepers. For 6 Hired Transport sick convoys 6 officers R. A. M. C., 6 officers I. M. S., 6 Assistant Surgeons, 24 nursing orderlies, 6 Sub-Assistant Surgeons, 6 ward servants Army Hospital Corps, 6 cooks Army Hospital Corps, 24 conservancy sweepers.

Telegram No. H.-5-3 6, dated 2nd May 1916.

(Despatched 9-35 P.M., received 11-20 P.M., 3rd May 1916.)

From—The Director, Medical Services, Force "D," Basrah.

To—The Chief of the General Staff, Simla.

Your 51346 30th April.

Please inform me whether 97 (?) officers and 200 (?) other ranks are in addition to personnel of general hospitals asked for in my H.-5-150 of 28th January. I propose utilising temporary R. A. M. C. officers and other ranks in British General Hospitals on the Indian scale to release Assistant Surgeons and Hindustani speaking officers for duty in the Indian General Hospitals; also I believe that a number of temporary R.A.M.C. officers and other ranks could be most usefully employed in Indian General Hospitals to take the place of the deficiency in I. M. S. officers and Sub-Assistant Surgeons.

Telegram No. 52577, dated 6th May 1916.

From—The Chief of the General Staff, Simla.

To—The General Officer Commanding, Force "D," Basrah.

Your D. M. S. No. P.-5-928, 28th April 1916 (*Dy. No. 51273*).

With regard to the equipments and personnel of the General Hospitals still deficient, see our 49363, dated 19th April 1916 and 10324-15 (D. M. S.-3), dated 22nd April 1916. As regards personnel for river boat Medical Units and hired transports conveying sick, Assistant Surgeons are not available but we can send you 24 R. A. M. C. Officers in lieu of 12 R. A. M. C. Officers and 12 Assistant Surgeons. We shall endeavour to supply 12 I. M. S. Officers but Sub-Assistant Surgeons are not available. More I. M. S. Officers will if possible be sent in lieu.

The nursing orderlies and the menial personnel will be supplied as soon as they can be made available.

Question 6.

Reference your D. M. S. H.-5-316 of 2nd May 1916. The 97 officers and 200 other ranks were asked for to enable you to meet the requirements in medical officers, I. S. M. D. and orderlies of the general hospitals asked for in your H.-5-150 of January 1916. It was with a view to such action as you outline in the telegram now under reference that these Officers and other ranks were asked for from Home.

No British general hospitals will be sent at present as in your H.-5-277, dated 14th April 1916, you say that with the extra general hospitals coming from England your requirements in these units will be met. Please say whether you concur.

We shall nominate the officers to command the Indian Units and shall be glad to have any recommendation from you.

Telegram No. P.-5-103, dated 19th May 1916.

(Despatched 8-55 A.M., received 4-30 P.M., 20th May 1916.)

From—The D.M.S., Force "D," Basrah,

To—The Chief of the General Staff, Simla.

Your telegram No. 52577, dated 6th May. Please send R. A. M. C. officers as suggested by (?) you. All personnel is urgently required especially medical personnel. Question of another general hospital British troops will be raised on my return after personal inspection up river. We are still 1,000 British beds short of 3,000 laid down. Will do what I can about collecting men from one Division into one hospital.

Telegram No. 55766, dated 24th May 1916.

(Despatched 2-15 A.M., 25th May 1916.)

From—The Chief of the General Staff, Simla,

To—The G. O. C., Force "D," Basrah.

Reference your D. M. S. telegram P.-5-928, dated 28th April and P.-5-103, dated 19th May 1916 and our 52577, dated 6th May 1916. Are we to understand that as regards Indian general hospitals, having received No. 8 Indian General Hospital from Egypt, you are now only short of two thousand beds. We have already informed you that excluding No. 8 Indian General Hospital there are under supply to you six and three-fifths Indian general hospitals or three thousand three hundred beds including the medical personnel of these,

This meets the requirements you gave in your H.-5-202 of 10th March 1916, but is eight hundred beds or one and three-fifths Indian general hospitals in excess of the requirements as you state them in your P.-5-928, dated 28th April 1916.

Shall we stop the supply of these additional one and three-fifths Indian general hospitals.

Telegram No. P.-5-1066, dated 3rd June 1916.

From—The Director, Medical Services, Force "D," Basrah,

To—The Chief of the General Staff, Simla.

Your 55766 of 24th May. All the Indian general hospitals will be required. Please inform me when the next general hospital is starting as we are still much below strength. On latest information am arranging for hospitals which will be an increase on previous estimates. This will be sent by post when ready.

Telegram No. 58052, dated 6th June 1916.

Question 6

(Despatched 7 P.M.)

From—The Chief of the General Staff, Simla.

To—The Director, Medical Services, Force "D," Basrah.

Your P.5-1066, dated 3rd June 1916.

Regarding Nos. 20 and 21 Indian General Hospitals please see our telegrams Nos. 55036, 55497, 56638, 57146 and 57402, dated between 20th May and 2nd June. Practically all of the Supply and Transport equipment of Indian General Hospitals Nos. 20 to 25 inclusive has already been forwarded to Deputy Director, Supply and Transport, Force "D."

The rest of the equipment is being despatched as it becomes available.

The balance of the personnel for the above with the exception of Officers and Sub-Assistant Surgeons will leave Bombay about 9th June. For Officers and Sub-Assistant Surgeons please see our 49733, dated 20th April 1916.

VII

Question 7.

(a) *Question.*—What steps have been taken to send the eight sections of a British general hospital and twenty-eight sections of an Indian general hospital referred to in paragraph 41 of your note?

41. In a letter dated 28th January 1916, which was received at Army Headquarters on the 9th February 1916, the D. M. S., Force "D" stated that, basing his estimate on the average of the 5 months June to October, and taking into consideration that the Force would probably be in more healthy surroundings this year, he had calculated that there would be 1,800 British and 5,200 Indian patients in hospital, daily, in Mesopotamia. He also stated that the number of beds in general hospitals of the Force, (including the Bengal Stationary Hospital), was 1,000 British and 2,400 Indian, and that he therefore required the equipment of 800 beds British and 2,800 beds Indian. He stated that he had asked the D. D. of S. and T., Military Works and Ordnance Services to obtain the full equipment for 800 beds for British and 2,800 for Indian troops, and requested that we should obtain the full medical equipment and personnel for these beds. Steps were immediately taken for the provision and collection of the complete equipments of 8 sections, British, and 28 sections, Indian, general hospitals.

(a) *Answer.*—Regarding the 8 sections British general hospital referred to in paragraph 41 of this office note, the great difficulty and delay which would occur in providing the personnel of 1 $\frac{3}{4}$ British General Hospital from India, resulted in the War Office being asked to provide, direct to Mesopotamia, one general hospital of 1,040 beds of the Home Establishment, complete with equipment and personnel. This hospital left Suez for Bombay on May 23rd, and instructions have been issued to Embarkation Commandant, Bombay, to despatch it, on arrival, to Mesopotamia at the first available opportunity. As regards the supply of the 28 sections, Indian general hospital, we have taken Force "D's" own estimate of requirements received on 23rd March 1916, as 6,000 beds. Excluding the British stationary hospital 2,200 were already in Mesopotamia leaving 3,800 to be supplied. 6 $\frac{3}{4}$ Indian general hospitals are under supply from India. No. 8 Indian General Hospital of 500 beds is now in Mesopotamia, having been and sent at our request from Egypt.

The position as regards the despatch of equipment and personnel is shown in attached tables.

As regards the Officers and Sub-Assistant Surgeons required for this large demand, we have been unable to supply these from India, and the War Office intimated on 20th April 1916 that at our request, 97 R. A. M. C. Officers and 200 R. A. M. C. rank and file were being supplied to meet deficiencies in Mesopotamia of I. M.S. Officers and Sub-Assistant Surgeons, as well as of Assistant Surgeons and British Nursing Orderlies.

(b) Before refusing General Hathaway's demands for four tugs in June 1915 what action did you take to ascertain that such vessels were not available? It is believed that steam vessels capable of towing barges have since been sent to Mesopotamia.

(b) With reference to General Hathaway's demand for 4 tugs* in June 1915, the St. John's Ambulance Association which had offered to supply the fleet of motor boats were informed of Surgeon-General Hathaway's opinion. The General Secretary then consulted Mr. Gall of Calcutta, who has much experience of river craft of all kinds. The latter stated that a steam tug drawing 3 feet 6 inches of water was out of the question and that, as motor launches were being used in the jute trade to haul heavy country boats, they could also be used as tugs in Mesopotamia.

Copies of the whole correspondence on the subject were forwarded to the D. D. M. S., Force "D" and it was pointed out that the scheme contained therein contemplated the use of motor launches of tugs as well as sick transports.

* With a maximum draft with all equipment on board, of 3 feet 6 inches.

No answer was received from D D M. S. Force " D ".

Question 7.

Stern wheelers of the Sikkim and Myitha types have since been sent to Mesopotamia for hospital purposes. Their draft is from 3 feet 3 inches to 3 feet 6 inches when loaded, but they have been reported as being unsuitable for towing barges.

This Branch is not aware of any other steamers having since been sent for hospital purpose, except on " L " Class Launch, which was specially built for Mesopotamia and despatched in April 1916. This can tow country boats but not barges except the smallest.

A statement is attached shewing the sources of supply of all motor launches and one steam launch in use by the medical authorities in Mesopotamia.

(c) In various parts of your report you refer to the despatch of motor launches for medical work in Mesopotamia. Please state which of these were sent by private charitable organizations and which by Government.

(c) None were supplied but all are maintained by Government.

(d) The Commission would be glad to know whether Surgeon General MacNeece and Surgeon General Hathaway were appointed by the authorities in India or by the Secretary of State?

(d) As regards the appointment of Surgeon-General MacNeece as Director of Medical Services in India in succession to Surgeon-General Babbie on the departure of the latter to Egypt: the procedure for the appointment of Director Medical Services in India is laid down in Army Regulations, India, Volume II, appendix XXII.

The question is dealt with in the Military Secretary's Branch.

As regards Surgeon-General Hathaway: he was appointed Deputy Director of Medical Services, Force " D ", by the Commander-in-Chief on the recommendation of the Director of Medical Services (Surgeon-General Babbie). Later, he was appointed Director of Medical Services, Force " D ".

TABLE A.

Statement shewing the position as regards the supply of 6½ Indian General Hospitals to India in Expeditionary Force "D".

Department of Supply.	No. 20 I. G. H.	No. 21 I. G. H.	No. 22 I. G. H.	No. 23 I. G. H.	No. 24 I. G. H.	No. 25 I. G. H.	Secns. C. D. & E. No. 26 I. G. H.	
	Shipped to Basrah.	Shipped to Basrah.	Shipped to Basrah.	Shipped to Basrah.	Shipped to Basrah.	Shipped to Basrah.	Shipped to Basrah.	
Medical ...	160 packages in "Sofala," 25th May 1916.	160 packages in "Bankura," 27th May 1916.	At Bombay awaiting embarkation.	D. G. I. M. S. stated on 26th April that these three Hospitals would be ready as soon as certain imported stores required, which are not available in the country are obtained. The D. G. of Stores has been asked to comply with the indent as soon as possible.				Official orders under issue.
S. & T. ...	Already there ...	Already there in addition 18 bundles of chicks 2 cases plates and glassware shipped in "Varzin" June 1916.	Already there ...	Already there ...	Already there ...	Already there ...	Ditto.	
M. W. ...	436 packages in "Urliana," 20th May 1916, (2 sets aseptic furniture and 2 sets Bk. furniture).	436 packages "Jeddah" on 17th May 1916 (2 sets aseptic furniture and 2 sets Bk. furniture).	.....	.....	.....	.....	Ditto.
Ordnance ...	831 packages "Sofala" 25th May 1916. 10 packages "Baroda" 27th May 1916.	831 packages "Islanda" 28th May 1916 10 packages "Bankura," 27th May 1916.	Ordnance equipment was despatched from Mhow to Bombay by passenger train on 3rd June 1916.	Ordnance equipment was despatched to Bombay from Mhow by passenger train on 10th June 1916.	Ordnance equipment was despatched from Lucknow to Bombay by passenger train on 29th May 1916, 17 other packages despatched separately.	Ordnance equipment was despatched from Lucknow to Bombay by passenger train on 2nd June 1916.	Ditto.	

TABLE B.

Question 7.

Personnel for 6 $\frac{3}{5}$ Indian General Hospitals.

Details.	Required.	Sent 26th March 1916 in H. S. "Madra,"	Sent 29th March 1916 in H. S. "Takada,"	Sent 26th April 1916 in H. S. "Cascon,"	Sent 25th April 1916 in H. S. "Bankura,"	Sent 27th April 1916 in H. S. "Varsava,"	Sent 10th May 1916 in H. S. "Edavanah,"	Sent 11th May 1916 in H. S. "Varsava,"	Sent 16th May 1916 in H. S. "Vita,"	Sent 6th June 1916 in H. S. "Vita,"	Total.	* Wanted.
Indian Medical Service Officers.	19	9	...	5	4	..	...	...	...	...	18	61
Sub Assistant Surgeons ..	132	4	...	19	...	...	...	...	...	...	23	119
Supply and Transport Corps Warrant Officers.	7	1	...	1	...	...	...	...	...	...	2	5
Packstore Havildars ...	20	5	...	3 [†]	8	12
Ward Orderlies ...	195	52	...	30	...	...	...	...	...	..	82	113
A. B. C. Bearers.	7	...	...	...	...	...	...	...	...	...	...	7
Pakhali Bhistis ...	66	...	...	121	...	...	36	...	...	6	54	12
Cooks ...	80	24	2	12	...	...	45	1	...	11	95	...
Water Carriers ...	80	22	1	12	...	...	44	...	2	5	86	...
Sweepers ...	132	48	1	20	...	...	61	4	5	26	165	...
Washermen ...	66	9	4	10	...	1	19	...	...	24	67	...
Hospital Store-keeper 1st grade.	20	9	..	3	...	...	11	1	...	2	26	...
Hospital Writers ...	20	6	...	3	...	...	11	...	...	1	21	...
Hospital Store-keeper Assistants.	33	4	1	5	...	1	35	...	...	1	47	...
Tailors ...	13	...	...	2	...	...	10	...	...	4	18	...
Carpenters ...	13	1	...	2	...	...	8	...	...	2	13	...
Conservancy Sweepers ...	66	...	...	20	...	8	26	...	...	...	54	12 [†]
Bildars ...	66	...	...	10	...	9	22	...	...	8	49	17
Hired Bearers ...	126	...	...	20	...	19	57	...	...	11	107	19
Conservancy Cart Drivers	33	...	...	5	...	...	7	...	...	...	12	21

* With the exception of Indian Medical Service Officers and Sub-Assistant Surgeons all the remainder of this personnel sailed on 6th June 1915.

† But see under "Sweepers", of which an excess of 33 have been sent.

Question 7. Launches in use in connection with the Medical Services, Indian Expeditionary Force "D".

3 *Small Motor Launches* presented by St. John Ambulance Association were sent to Mesopotamia on 6th June 1915.

1 *Launch, The "Aerial"*, lent and run by Mr. Chalmers of Jorhat, Assam.

1 *Motor Paddle Launch* presented by Mr. Gall of Calcutta to the St. John Ambulance Association who presented it to Government.

1 *Motor Launch, The "Porcupine"*, presented by St. John Ambulance Association.

1 *Motor Launch, The "Olinda"*, presented by Sir W. Garstin.

1 *Motor Launch, The "Wessex"* presented by the Ladies of Wessex.

1 *Motor Launch, The "Laboratory"*, presented by St. John Ambulance Association.

1 *"L" type Steam Launch, The "Dooars"*, presented by the "Dooars" Planters Association.

1 *Motor Launch* placed at disposal of the Bengal Stationary Hospital by His Highness the Raja of Tipperah.

ST. JOHN AMBULANCE ASSOCIATION.—INDIAN HEADQUARTERS.

SUBJECT:—MOTOR LAUNCHES FOR MESOPOTAMIA.

Chairman.—I submit copy of telegram from Army Headquarters to the General Officer Commanding Force "D" and his reply.

I also submit letter from Messrs. Lardale and Clark, Merchants and Brokers of Calcutta, to their Managing Agent Mr. Gall now in Simla.

Mr. Gall has been very interested in the scheme for Motor Ambulance Launches in the Gulf referred to at the Meeting of the Indian Council and in your speech on St. John's Day.

Mr. Gall has written to his firm asking to have plans and specifications prepared for a strong wooden flat bottomed dinghy with engines astern and plenty of space forward.

He places Rs. 10,000 to Rs. 12,000 at the disposal of the Association and suggests that I should run down to Calcutta and go into the matter on the spot.

I recommend that Mr. Gall's generous offer be accepted.

Mr. Gall has had much experience of tugs and river craft of all kinds and says that he considers that a steam tug drawing 3 feet six inches is out of the question.

He says that motor launches are used in the jute trade to haul heavy country boats and that our motor launches could be used as tugs.

He says that the plan of a number of small boats seems from his experience on the Gauges and Brahmaputra better suited for ambulance work than larger craft as if one boat out of a fleet of ten went out of work it would not materially matter whereas the breakdown of one out of a smaller number of larger craft might prove a serious matter.

SIMLA ;

28th June 1915.

} (Sd.) R. J. BLACKLAN, *Lieutenant-Colonel.*

General Secretary.

Passed to D. M. S. for favour of consideration and remarks.

Question 71

There appears to be some misunderstanding as to the nature of the boats already supplied and also as regards those we now propose to supply (see telegram from G. O. C., Force "D").

These boats are not fitted motor-ambulances but are motor launches of light draught, which might, if necessary, be used as tugs (see Mr. Gall's opinion, quoted in above note by General Secretary). I suggest that his offer to design a flat bottomed dinghy with engines astern is worthy of consideration and I am accepting his generous offer of Rs. 10,000 Rs.—12,000 provisionally.

C. P. Lukis,—29-6-15.

Since writing the above I have seen Mr. Gall and he tells me that one of these dinghies should permit of arrangements for conveying about $1\frac{1}{2}$ times as many sick as an ordinary country boat.

C. P. Lukis,—30-6-15.

Copy of a letter from Messrs. Landale and Clark, Limited, Calcutta, to R. L. B. Gall, Esquire, Grand Hotel, Simla, dated the 23rd June 1915.

Regarding motor boats you give no idea of the size or design of the craft you want which makes the job of looking up a 'suitable' boat somewhat difficult.

It is quite possible to build a boat of almost any length to draw only 3 feet of water and still have the speed you want. The light draught is a question of board beam and flat bottom.

If, however, the boats are wanted off at once they must be small enough to be carried to destination aboard ship as, now the monsoons have broken, no vessels drawing only 3 feet could possibly do the voyage under their own power. Parrott and Reid both confirm this. It appears, therefore, in the case of great urgency your letter suggests, you are limited to a boat of not more than about 35 feet in length. That being so my suggestion is to build strong wooden flat bottomed dinghies, have the engines placed as far astern as possible to get a big open space forward. This space would be covered over and the cots placed thereon to the best advantage. A boat like this would carry about 6 to 8 cots and 40 passengers in the ordinary way. I went into the whole matter with Reid and he thinks my suggestion the only feasible one under existing circumstances. He could build these boats in about 3 weeks at a push. Some difficulty might be experienced regarding motor power. As you know, there are few if any internal combustion engines for launches in stock in Calcutta and it is hopeless trying to get them quickly from home. The difficulty about engines we could easily get over as good reliable engines from old motor cars are available and adaptable. The difficulty is about reversing gear. Reid has one new set which I reserved for the Preyer patent. The other he has on his Motor Bolio and which he would give us. I understand there are a number of Campbell engines in Calcutta (which were seized by some Marwari against Mosden's debt when the latter "bunked"). I am trying to locate these. As you know, these have no gear but reverse by changing direction of engines. Though not in my opinion over satisfactory they might do in a push. These Campbell engines are Crude Oil. Reid however is of opinion Petrol is more desirable as it gives less trouble and is more efficient.

Meantime I am trying to find out what suitable boats are available and will let you know as quickly as possible. I am only too pleased to do all I can to assist in this or any other matter which helps those fighting.

Question 7.

Demi official dated Basrah, the 6th July 1915.

From—The Deputy Director Medical Services, Force " D " .

To—MAJOR MELVILLE, Assistant Director Medical Services, in India.

Telgram No. 18-89 of 20th June, regarding motor launches was based on advice of Marine Transport Officer. Motor Launches would be most useful for conveying sick to general hospitals, ships and infectious hospitals, for calls of emergency of medical officers, and for use with troops operating. The alternative in all cases being a slowly punted native boat or " bellum ".

Launches would be useless to tow native boats, you could not use two launches because the towing must be done along side.

I have had six *mahailas* (boats like Arab dhows) fitted up admirably by R.E., they take a large number of cases and are towed, one on each side of a tug. They answer the purpose well, accompany the troops operating and convey the sick and wounded from outstations Amrah, Ahwaz and Kurnah, and they will do so from Nasiriyah when we arrive there. If we had our own tugs this evacuation could be done well and we should not have to make use of chance steamers, and during operations every boat is wanted. There is then the set of launches required. Blackham has sent three which I hope will soon be in use. Their engines are being overhauled and he is sending two more. This should be a sufficient number of launches and I don't want them fitted specially for ambulance purposes. It will be sufficient if they can carry one patient lying. I have a good lot of native boats well fitted up specially to my own plans and I do not want any extra equipment for them from India.

I have confirmed the opinion of Marine Transport Officer that the tugs should not draw more than 3 feet 6 inches water otherwise they could not go out of main stream; the river goes down rapidly. What we want is two more motor launches which Blackham has promised (I hope no freak engines), and small fast steam tugs to tow *mahailas*.

Memorandum No.-T-2-20, dated 17th June 1915.

From—H. G. HATHAWAY, Surgeon-General, D.D.M.S., I.E.F. " D " .

To—The Assistant Quartermaster-General, I.E.F. " D " .

Reference your No. 16-84-Q., dated the 16th instant.

I agree with the P.M.T.O., and consider that motor boats for this purpose would have to be very large and cumbersome; they are noisy and smelly for sick to lie in and are doubtful craft to depend on in these parts where skilled artificers and drivers are at a premium.

It would be far more feasible to have hospital *mahailas* of light draught, maximum 3 feet, when equipped and loaded, towed by small, but fast, steam tugs. Tugs must not draw more than 3 feet 6 inches when fully and loaded and be able to steam at least 10 knots in still water.

(Sd.) H. HATHAWAY, *Surgeon-general*,

D. D. M. S., I. E. F. " D "

Post Box No. 112 G. P. O.

My dear Blackham,

R. G., *Calcutta*, 13th July 1915

As your time is so short the following note explaining the position generally may be of use.

When I came back I went into the question of Motor Boats such as we had in view at Simla. I found that these would be quite suitable for the purpose, but have certain drawbacks if required quickly. —

1. The boats could be built in three weeks at a push as indicated but Question 7. would require at least six weeks to set engines and fit up generally for your purpose. A certain time would also be necessary to arrange designs only the rough sketch, which you have, so far being ready.

2. There is the difficulty of getting suitable motor engines. These can't be got from Home but must be got from old cars and already a demand for these has sprung up. In time a few might be got but the supply of motor engines of suitable type is limited.

3. There is last the difficulty of the reversing gear which is more or less a necessity. Only two 'Ideal' gears are in Calcutta, the one we had pre-empted for our Launch and the second on the Hooghly Docking Co's launch which you saw to-day. John King & Co. have reversing gears for Brookes' engines but would not sell these alone. To get them, therefore, would mean the purchase of the Brookes' engine and gear complete a very expensive item. Messrs. Martin & Co. have telegraphed home for another gear like those you saw but it will not be possible to calculate on this order being filled quickly.

As this was the position regarding the Boios I considered the alternative scheme which Mr. Soutar suggested. The motor launch 'unnamed' which you inspected to-day was built at the Royal Indian Marine Dockyard here, steel hull throughout, for upcountry work and has only had six months use. She is about 40 feet in length by about 10 feet beam and at present draws only 20 inches. With alterations suggested below and with patients and crew aboard it is expected she would not draw over 2 feet 3 inches.

Her present motive power is a Brookes 3 cylinder 12 H. P. Petrol Motor with reversing gear complete driving through worm gearing on to over 5-6 knots in still water. It is suggested :—

- (a) to remove the present engine and substitute a six cylinder 40 H. P. "Prothos" motor engine second hand under offer. This is a petrol engine and in good condition taken from a racing car that was little used.
- (b) To substitute for the present reversing gear the 'Ideal' reversing gear which we had preempted. This is on the light side for the engine now being fitted but will it is thought carry all right.
- (c) To fit higher geared worm drives and enlarge the paddle blades. This can be done.
- (d) To carry the deck over the present cabin right aft over engines and after sitting accommodation. If this were done there would, in addition to the present cabin space with lavatory available, be room on this deck for about 15 stretcher cases—and sitting accommodation aft for 16 patients. All this under an excellent awning. This would mean room for about 18 stretcher cases and 16 patients in all which is far more than could be carried by two bolios however constructed. If they were all sitting cases, about 60 patients could be carried.

Crew :—One serang and one secunnie, one mistry and one extra hand, four in all, would suffice of which only one need know the engines. With the 2 Bolios suggested four men would also be required but two of these would require to be able to run motor engines.

Speed :—The launch as suggested should give 12 knots in smooth water and 8-10 miles against a 4 knot current. The engine could be fitted to give even more but it is not advisable to speed the launch much over this.

Cost of running :—The motor will have a fairly heavy consumption in petrol but in stores petrol, etc., running cost should not exceed two bolios.

Transport to base :—The Bolios could be sent by rail. On account of the paddle boxes the launch could only be sent by sea but would easily be carried on deck of a vessel from here to Bombay and from there to destination. She would be fitted for slinging and could be carried safely in the monsoon. The voyage to Bombay would take about 10 days.

Question 7.

Approximate cost:—The cost of the launch would approximately be.—

Cost of boat as she lies	...	...	...	Rs. 8,000
„ of 40 H. P. engine	...	...	...	1,250
„ of reversing gear	...	...	...	500
„ „ fitting engine, new worm gear, structural alterations, painting, etc.	...	...	estimated	2,000
About Rs.				11,750

*Telegram from the Secretary of State for War, War Office, London, to the Commander-in-Chief in India, Simla, No. 10073, dated 26th May 1915.
(Despatched 9-25 p.m., received 8-20 a.m., 27th May 1915.)*

In view of the urgent and serious medical problems in connection with Mediterranean Expeditionary Force, it will be of great assistance if the services of Surgeon-General Babbie could be temporarily placed at our disposal as Director Medical Services, Expeditionary Force, and Egypt and Malta. Would be glad if you will help us in the matter and order him to proceed forthwith.

Copy of a telegram from His Excellency the Viceroy to the Right Hon'ble the Secretary of State for India, No. H-5219, dated the 29th May 1915.

In view of the urgent and serious medical problems in connection with the Mediterranean Expeditionary Force, War Office have asked for services of Surgeon-General Babbie temporarily as Director, Medical Services, Expeditionary Force and Egypt and Malta. We are prepared to agree but we should be glad if the services of Surgeon-General Whitehead could be made available temporarily to replace Babbie.

Copy of a telegram from the Commander-in-Chief in India, to the Secretary of State for War, War Office, No. 11209, dated 30th May 1915.

Your 10073 of 26th May. Secretary of State for India was informed on 29th May of your request for Surgeon-General Babbie's services and that Government of India prepared to agree. At request Government of India have asked for services Surgeon-General Whitehead temporarily to replace Babbie. Babbie will sail by mail steamer fifth June. Babbie applies for Lieutenant-Colonel Granger, I.M.S., to accompany him and in view of importance of arrangements connected with Indian hospital and onward passage Indian invalids, I am prepared to spare Granger's services if you require them. Please telegraph reply early.

Telegram No. 10783, dated 3rd June 1915.

(Despatched 7-55 P.M., received 6-50 A.M., 4th June 1915.)

From—The Secretary, War Office, London.

To—The Commander-in-Chief.

Your telegram of 30th May, S.-11209, Surgeon General Whitehead cannot proceed owing to illness. Surgeon-General MacNeece being sent. India Office

have been asked send Surgeon-General Babbie in anticipation of relief accompanied by Lieutenant-Colonel Granger. Question 7

Copy of a telegram from the Secretary of State for India, to His Excellency the Viceroy, dated 5th (received 6th) June 1915.

Your telegram dated 29th May at H.-5219, War Office state the Whitehead is unable to proceed to India on account of illness, but MacNeece will be sent at the earliest possible date to replace Babbie. War Office request that Babbie may be directed to proceed in anticipation of MacNeece's arrival and informed he will be Principal Director of Medical Services of Mediterranean Expeditionary Force and Malta and Egypt. War Office request that Lieutenant-Colonel Granger, Indian Medical Service, may be permitted to accompany Babbie.

Telegram P., No. 59-8-M.S., dated 19th December 1915.

From—The General Officer Commanding, Force "D," Basrah,

To—The Chief of the General Staff, Delhi.

Propose that following appointments be made, as the Force in Mesopotamia is no longer an Army Corps but an Army.

To be D. M. S., Army Headquarters—Surgeon-General Hathaway.

Officiating D. D. M. S. General Aylmer's Army Corps—Colonel Tate.

Colonel Hehir to succeed Tate, when (are) services Colonel Hehir available?

Officiating A. D. M. S. 12th Division—Lieutenant-Colonel Irvine.

Appointments of Assistant Director of Medical Services Base and Line of Communications already made.

This is in reply to your S.-31145.

Telegram P., No. 33088, dated 3rd January 1916.

From—The Chief the General Staff.

To—The General Officer Commanding, Force "D," Basrah.

Your telegram 59-17-M.S. of December 31st.

We have at present under consideration the re-organization in Force "D," of the Administrative Staff, Medical.

In the meantime, approval is accorded as a temporary measure to the 3 appointments referred to in your telegram, dated 19th December 1915, No. 59-8-M.S.

ADDENDUM.

Notes by the Director, Medical Services in India.

(Filed 17th June 19 6)

I.—Discrepancy in figures of minimum requirements in I. M. S. Officers.

(a) in Colonel Hendley's note of 24th June 1915, and (b) Answer to Question 2.

Reply.—The figure 183 shewn in the total column of Statement "A" does not include 8 I. M. S. Officers as D. D. M. S. and A. Ds. M. S. and 5 Officers employed in Ambulance Trains=Total 196.

II.—*Statement showing I. M. S. Officers sent July to September.*—This should include—

(a) 10 Officers sent 2nd July 1915.

(b) 7 Officers sent in August and September.

The ten referred to at (a) and the 7 at (b) are noted in the reply to question 4 under "I. M. S. Officers."

I submit a revised statement.

III.—*Statement of Units in Mesopotamia.*—With the exception of the omission of No. 8 Indian General Hospital, this statement is correct in accordance with the latest information in this Office. Please see top of page 3 for rest of Indian general hospitals.

The Lahore Indian Stationary Hospital is No. 61. Indian Stationary Hospital. I am sorry that in the hurried look I had at the statement this afternoon, I did not point out that these units had been mentioned.

No. 8 Indian General Hospital appears for the first time present in Force "D," in a return received yesterday June 15th, 1915. This return is corrected up to June 13th.

IV.—*Statements showing the position in May 1915*—as regards Indian Medical Service Officers, Assistant Surgeons and Sub-Assistant Surgeons are placed below.

Statement showing the position of I. M. S. Officers in May 1915.

Authorised establishment <i>vide</i> A. T.	{ Military 273 }	725
Medical pages, 2 and 3.	{ Civil 452 }	
No. effective in Civil employment	...	174
No. on M. C. leave in England	...	23
No. on furlough in England	...	3
No. on M. C. leave in India	...	1
No. with Force A. (France)	...	198

Statement shewing the position in May 1915, as regards Assistant Surgeons.

(1) Number of Military Assistant Surgeons on :—

(a) Ordinary leave 1 pending retirement)

(b) Medical certificates leave 2

(2) Number of Military Assistant Surgeons on Field Service in France 214

(3) Number of Military Assistant Surgeons in Civil employment 141

The total number of Military Assistant Surgeons authorized in Army Tables ^{Addendum.} Medical was 705 of which 424 were authorized for military employ, and 28 for Civil employment.

Statement showing the position of Sub-Assistant Surgeons in May 1915.

(1) Number of Military Sub-Assistant Surgeon on :—

(a) Ordinary short leave in May 1915	...	...	6
(b) Medical certificates in May 1915	...	...	34
(2) Number of Military Sub-Assistant Surgeons on Field Service in France in May 1915	...	...	253
(3) Number of Military Sub-Assistant Surgeons in Civil employment in May 1915	...	...	39*
(4) Number of Civil Sub-Assistant Surgeons in May 1915	...	†	

Vide Army Tables Medical pages 2-5.

The total number of Military Sub-Assistant Surgeons authorised is 870, of which 739 are authorised for Military employ and 131 for Civil employ.

*(a) Made up thus.—

In India.—13, of whom 10 were with Levy Corps.

Out of India.—26, of whom 4 were on active service in Nyassaland, and 22 in British East Africa out of whom 6 were on Active Service.

† This information is not available in the Office of the Director General, Indian Medical Service. Local Governments are being addressed by wire.

**D.—QUESTIONS ADDRESSED TO THE QUARTERMASTER
GENERAL IN INDIA.**

QUESTIONS ON WHICH THE COMMISSION DESIRE SPECIFIC INFORMATION.

Question 1.**I.**

*Question :—*What Department of the Government of India or what Branch of Army Head Quarters was responsible for collecting shipping suitable for employment on the rivers in Mesopotamia ?

*Answer :—*The Quartermaster-general's Branch working in conjunction with the Director, Royal Indian Marine, is responsible for collecting river craft for general transport purposes and for port and harbour work. The selection of suitable craft together with all technical details connected with survey, fitting up, strengthening for despatch and conveyance or towage to Mesopotamia are carried out by the Director, Royal Indian Marine, and the various Port Officers under his orders for all craft obtained in India, and under the orders of the General Officer Commanding, Singapore, for craft from that port.

II.

*Question :—*Is it a fact that no steamers or barges were despatched to Mesopotamia between the months of October 1915 and January 1916, and if so, the reason for this ? Question 2.

*Answer :—*No.

The following steamers were despatched during that period to meet Force "D's" demand for some light draught sternwheelers and tugs, which was received on the 9th October 1915 :—

Paddler	...	...	Shewli left Rangoon	16-12-15	(sunk).
Stern wheeler		...	Pima do.	do.	
" "	...	...	Popa do.	do.	(sunk).
" "	...	...	Sikkim do.	do.	
" "	...	...	Tiddim do.	6-12-15	(sunk).
" "	...	...	Falam left Calcutta	27-12-15.	

No barges were despatched during the same period because none were in demand from this country.

III.

*Question :—*What steps were taken to collect information regarding river steamers available in India ? Question 3.

*Answer :—*The Director, Royal Indian Marine, was informed of the dimensions and specifications of the different types of craft required by the G. O. C., Force "D", and was asked for details of any that complied with limitations given.

Correspondence regarding River Craft (vide also Statement by Major General Comper supra.)

Telegram No. 229-1-W. S., dated 5th January 1915.

From—The Quartermaster General in India, Delhi.

To—The Director, Marine, Bombay.

The following are proposed by the G. O. C., "D" Force for use with his Force.

Seven flat-bottomed paddle or sternwheel steamers, each to carry from 500 to 800 men, with a draught not greater than $4\frac{1}{2}$ feet, they must be capable

of steaming 10 knots when towing a couple of lighters, which are carrying 200 tons. Steamers similar to Lynch & Co.'s "Mejideh" would be suitable.

Also two lighters, which must not draw more than $4\frac{1}{2}$ feet, when carrying 200 tons, these should also be flat-bottomed. Can you get take up suitable steamers anywhere; if not, can you arrange to build them anywhere, and how long would their construction take.

Telegram No 473-5-W.S, dated 12th June 1915.

From—The Quartermaster-General in India.

To—The Director, Marine, Bombay.

Your 1296 Q., 1st June. Please ascertain if any tugs with draught of three and a half feet or less are available.

Telegram No. 473-9-W.S., dated 19th June 1915.

From—The Quartermaster-General in India.

To—The Director, Marine, Bombay.

Case No. 523-W. S. Can you build tugs in India to tow two large lighters at speed of ten miles per hour and not exceeding three and a half feet draught when loaded; if so how long would they take, and what would approximate cost be?

Telegram No. 584-2-W. S., dated 14th October 1915.

From—The Quartermaster-General in India.

To—The Director, Marine, Bombay.

Continuation my 584-1-W. S., eleventh October. General Force "D." requires powerful tugs and sternwheelers at once if obtainable in India. Tugs to be capable of towing two large barges maximum draught admissible three feet five inches same as Samana class. Sternwheelers dimensions seventy by sixteen feet draught two feet six inches fully loaded, advantageous if sternwheels have independent engines. Can anything of suitable draught approximating to above requirements be procured in India they are urgently required to serve as stop gaps until craft ordered from England arrives. No actual purchase must be carried out until orders of Government are received.

IV.

Question 4.

Question:—Is there any evidence to justify the suggestion by the authorities at Basra as to particular steamers known to be on Indian rivers which would be suitable for work in Mesopotamia, the enquiries made by the authorities in India having failed to elicit this information?

Answer:—The only instances of craft having been suggested from Basrah before they were offered from India are as follows:—

- (a) The Irrawaddy Flotilla Company's Paddlers "Otsaru" and "Osaka." These vessels were both accepted by the G. O. C., Force "D", but they were reported by the D. R. I. M. as being "not strongly built, only speed and lightness having been intended in their construction".
- (b) The Irrawaddy Flotilla Company's Paddlers "Kabul", "Kelat", "Kamlin", "Tokio", "Taping" and "Tarok".

Details of these vessels were furnished by the D. R. I. M. before the receipt of G. O. C., Force "D's" request to be given particulars of them, but they had not been offered to Force "D", because further details regarding them were being obtained. Of these the "Kabul", "Kelat" and "Kamlin" were accepted by the

G. O. C., Force "D". It should be noted that the loaded draught of these vessels is 5'. Question 4.

- (c) Vessels belonging to the India General Steam Navigation Company of the "Arcot" and "Amber" class.

These vessels were asked for from Basrah on details of certain other vessels belonging to this same company being supplied to Force "D".

The vessels of which details were furnished were considerably older but had a loaded draught of 4'6", whereas these vessels had a light draught of about 4'6" and a loaded draught of 6'. None of these vessels have been accepted by Force "D," since being furnished with full details.

- (d) Tugs "Thilwa", "Kamakasi" and "Lanmadan". D. R. I. M. reported these were all by the stern and gave no satisfaction in less than 7 ft. of water. "D" informed accordingly. He, however, accepted them for Basrah and adjacent waters.

- (e) Paddlers "Peking", "Hindustan", "Kashmir", "China", "Prome", "Ceylon", "Assam", "Siam" and "India". Of these "Kashmir" was burnt in 1910, "Hindustan", "China", "Prome" and "Peking" were too old and unsuitable. G. O. C. was given particulars of the remainder, also of others proposed as substitutes for those reported unsuitable. None were accepted on account of their excessive length.

Certain definite limitations, necessitated by the peculiarities of the river Tigris, having been laid down by the G. O. C., Force "D", it was concluded that vessels which failed to even approximately comply with the most important of the limitations, *i.e.*, draught, were useless.

V.

Question:—How many river steamers and barges intended for use in Mesopotamia have been lost in transit and the dates on which they were lost? Question 5.

Answer:—The following river craft have been lost in transit:—

Paddlers.—3 *viz*:—"Shewli" on ? December 1915. "Santipore" on 26th April 1916. "Kelat" on 4th May 1916.

Sternwheelers.—17 *viz*:—"Hilsa" and "Tiddim" on ? December 1915; "Papa" on ? January 1916. "Hooker-Senior" on ? February 1916. "Ilsha" on 13th February 1916. "Iris" on 16th February 1916. "Ardbeg" on 2nd February 1916. "Mercury" on 27th February 1916. "Hingol" on 2nd March 1916. "Ardmhor" on 9th March 1916. "Herald" on 18th March 1916. "Barisal" on 19th March 1916. "Pioneer" on 22nd March 1916. "Ardgowan" on 19th March 1916. "Ardgay" on 15th April 1916. "Ormal" and "Ardross" on ? April 1916.

Steam Tugs.—3 *viz*:—"George Hill" on 11th January 1916. "Buki-Tyong" on 5th May 1916. "Winefred" on 13th May 1916.

Steam Launches.—2 *viz*:—"Kwong-Sengtai" on ? April 1916. "Excise" on 10th May 1916.

Barges.—20 *viz*:—Nos. 78 and 79 on 15th January 1916. Nos. 76 and 77 on 19th January 1916. No. 7 on ? February 1916. No. 21 on 25th March 1916. No. 61 on 25th March 1916. Nos. 92 and 93 on 2nd April 1916. No. 95 on 29th April 1916. No. 104 on May 1916. Nos. 94, 105, 106, 107, 122, 123, 124, 125 and 126 during May 1916.

VI.

Question:—In view of the fact that the decision to advance on Baghdad obviously necessitated the provision of additional river steamers for which Sir J. Nixon had already asked, what steps were taken to expedite the collection, Question 6.

Question 6. Craft answering to the specifications given by Force "D" do not appear to exist in the East, and there are a very limited quantity on Indian rivers even approximating to his specifications.

Moreover, Secretary of State in his telegram M.-24817, dated 21st July 1915 (*Dy No. 15849*), stated he was informed by the Admiralty that tugs to specification given by G. O. C. Force "D" were not procurable, whilst in his S.-5698, dated 28th February 1916 (*Dy. No. 41225*) stated that a great dearth of "Shallow Draught" vessels exists in England. Had the G. O. C., Force "D" originally stated that his specifications were only for the craft to be specially built, and that he was prepared to accept other craft with a large towing power and with a maximum loaded draught up to 6', a very large number of vessels could have been got to Basrah during the calm weather, but it is shewn above that Force "D" laid down certain definite limitations as to the maximum draught until October 1915. It was the limitation in draught combined with the capacity to tow two large barges that prevented a large number of vessels which have subsequently been accepted, from being offered.

2. It should be noted that even when suitable craft are available, a considerable period must elapse from the date of the steamer, etc., being accepted to the time when a vessel can reach Basrah. The vessel has got to be called in (frequently from a long distance inland), it has then to be surveyed and repaired, strengthened for the despatch and arrangements made for its towage to Basrah. All this takes time, and two months is about the shortest time in which a vessel can reach Basrah from date of receipt of Force "D's" acceptance.

3. It is not possible for those in India responsible for the supply of river craft to form any idea of what the requirements of the Force are, and to make arrangements accordingly beforehand, unless they are in possession of details of the craft already with the Force including that obtained from local sources and of what the requirements are likely to be.

On the 9th September 1915 a statement of the river craft which was believed to be in Mesopotamia, was forwarded to G. O. C., Force "D" with the request that he would make any alterations or additions thereto. After six reminders the statement of river craft with the Force was received on the 10th March 1916, with G. O. C.'s letter No. 766 340-Q., dated 27th February 1916. (*Dy. No. 42791*).

4. If it is desired to tow craft to Basrah with any certainty of their arriving at their destination, they must be despatched from India in the "fair season", the following are the reasons given by the D. R. I. M., and Port Officers concerned:—

For towing.

<i>Fair.</i>		<i>Foul.</i>
<i>Calcutta.</i> —Passenger	1'1 to 31'3	1'4 to 15'8
	16'8 to 30'9	1'10 to 15'11
	16'11 to 31'12	
Freeboard	15'11 to 25'5	25'5 to 14'11
<i>Rangoon.</i> —Merchant	15'11 to 25'5	25'5 to 4'11
Passenger	1'9 to 30'4	1'5 to 31'8
<i>Bombay.</i> —Passenger	1'9 to 25'5	26'5 to 31'8

In order despatch craft during these periods the requirements must be estimated considerably in advance.

As regards river craft from England only two other demands were preferred, *viz.*:—

To Secretary of State for 6 paddlers, 16 tugs and 55 barges, *vide* telegram No. H.-794, dated 31st January 1916 (*Dy. No. 38902*).

To Chief Imperial General Staff, London for 15 tugs and 36 barges, *vide* Dy. No. 38846, dated 14th February 1916.

The following additional river craft have been arranged for by the Question 5.
Admiralty :—

6 Thames Paddlers, 6 Motor Lighters and 40 Flat Bottomed Boats, *vide* Dy. No. 30455, dated 11th December 1915.

20 Barges, *vide* Dy. No. 31054, dated 16th December 1915.

7 Nile Paddlers from Egypt, *vide* Dy. Nos. 30112, dated 8th December 1915, 30812, dated 15th December 1915, 31304, dated 19th December 1915, 35013, dated 17th January 1916.

14 Motor Lighters, *vide* Dy. Nos 43046, dated 10th March 1916, 46994, dated 4th April 1916, and 55262, dated 20th May 1916.

There appears to be no object in endeavouring to hurry the Home Authorities in respect of the supply of these craft as the "urgency" was as well known at home as in India, moreover, in reply to reminders in regard to the demand sent Home in August 1915, Secretary of State had said that everything possible was being done to supply the craft demanded.

Correspondence regarding River craft

Telegram P., No. 3-G., dated 2nd January 1915.

From—General Barrett, Basrah.

To—The Chief of the General Staff.

By experiment we find that one of Lynch's steamers with one or two iron lighters in tow can carry one squadron, or one battery, or one battalion or H. Q. and one company Sappers and Miners with minimum 1st line mules and one day's supplies, or two hundred mules.

These can cover 60 miles during daylight. Therefore, for a force of one brigade, one squadron, one battery, and one company Sappers and Miners with 500 mules we should require 14 lighters with 10 steamers. If supplies and coal for 10 days are taken we should want in addition 4 more lighters and 2 tugs. After deducting vessels now available, we shall require 7 steamers and 1 or 2 lighters with a capacity of 200 tons. I would also recommend the provision of gunboats of a shallow draught to accompany the Force. These would be desirable if not essential.

I suggest that the Admiralty be asked to provide 4 such gunboats. It is most desirable that their draught should be $4\frac{1}{2}$ feet, but at any rate it should not exceed 9 feet. They should have a speed of 10 knots. Protection from rifle fire, and to some extent from fire of field guns, should be provided.

The "Espiegle", which has a draught of 12 feet, has the greatest difficulty in making her way up the Tigris above Kurnah, and is unable to move up the Euphrates at all.

This ends part 2 of my report.

Please acknowledge receipt of the whole message separately.

Telegram P., No. 129-109-1, dated 2th July 1915.

From—The General Officer Commanding, Force "D", Basrah.

To—The Chief of the General Staff.

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On account of the fact that they draw too much water, I am unable to send these ships across the Hammar Lake and as Gorrington has all light draught steam vessels with him he will be compelled to send back enough boats to bring forward this brigade if he should require it.

The operations have been hampered throughout by the pattern of vessel suited for inland waters and for the Tigris, and I am sending you a letter in

Question 6

which I explain the need of the supply as quickly as possible, of 6 paddlers of the Lynch Company pattern and 3 stern wheelers of yet still shallower draught. The specifications which I recommend are also being given.

Telegram P., No. H.-6772, dated 3rd August 1915.

From—The Viceroy (Army Department).

To—The Secretary of State for India.

General Nixon, who was consulted in the matter, wires that the Senior Naval Officer is at present above Nasiriyeh on the Euphrates, and that he had arrived at the conclusion after giving the matter his full consideration in consultation with those best qualified to judge, including the Consulting Engineer of Messrs. Lynch & Co., who is now at Basrah.

General Nixon is aware that the Senior Naval Officer holds the same views as himself. It is probable that the latter may not return for some weeks, but Nixon states that if it is desired he will consult him then. He, however, deprecates any delay. We concur in the above. General Nixon has submitted proposals for the construction in England of the following for Force "D":—

3 Sternwheelers.

6 Paddle Steamers.

8 Tugs, including 6 referred to in the correspondence ending with your telegram noted below.

43 barges.

Specifications of the above will be furnished by this mail, but Nixon recommends consultation with Messrs Lynch Bros. as to details and that this firm should be given the contract for these boats also that Thomas, Consulting Engineer to Messrs. Lynch, be deputed from Basrah, to superintend the construction of the boats in England.

This is with reference to your M.-24817 of 21st July and Force "D", telegram No. 766-4-Q., dated the 26th July which was repeated to you.

Telegram No. Q.-2012, dated 15th October 1915.

From—The Director, Marine, Bombay.

To—The Quartermaster-General in India, Simla.

Reference your telegram 584-2-W. S., October fourteenth. Following received from Principal Port Officer, Rangoon, dated October fourteenth. *Begins.* Your M.R.-204. No powerful light draught tugs in Burma. Irrawaddy Company have several stern wheelers of hundred to hundred and thirty feet in length. Beam twenty-four to thirty-one feet, draught when empty two feet, speed nine to ten miles. Some of them have no upper deck. Towing this class of vessel from Rangoon to Persian Gulf I consider almost impracticable as they would break up in the slightest sea. If vessels were taken to pieces and shipped in some steamer to Persian Gulf it would take about two months and many plates would not stand rivetting and would have to be renewed. Vessels are all up the Chindwin River at present. *Ends.* Following reply sent to Principal Port Officer, Rangoon, dated October fifteenth. *Begins.* Reference your R.M.-353, October fourteenth will you consider the feasibility of strengthening these river crafts in such manner that they could safely be towed to the Shatt-al-Arab. If you could deliver them at Colombo, I will arrange tow from there. *Ends.*

Telegram No. 584-4-W.S., dated 19th October 1915.

From—The Quartermaster-General in India.

To—The Director, Marine, Bombay.

Your Q.-2012, fifteenth, and Q.-2033, eighteenth October, refer to Burma only. Are any tugs, approximating requirements and of draught given available in India,

Telegram No. Q.-2072, dated 25th October 1915.

Question 6.

From—The Director, Marine, Bombay.

To—The Quartermaster-General in India, Simla.

Your 584-4-W.S. No tugs of this description can be procured in India.

VII.

Question 7.

Question :—We have been told that some of the steamers, motor launches and barges, *e.g.*, the hospital barges sent to Mesopotamia, were either unsuitable or in bad repair.

Are these allegations correct, and if so, who is responsible for the despatch of river craft with the defects complained?

Answer :—In regard to river craft taken up for general transport purposes, the complaints received from General Officer Commanding, Force "D", are as follows—

- (a) In this telegram No. 766-316 Q., dated 21st February 1916 (Dy. No. 40030), G. O. C. enquired certain particulars in regard to some paddlers offered, one item being whether they were "fit for hard continuous service." He explained that these particulars were asked for as the "Ailee" and "John Mullins" required extensive repairs before they could be used.

This was communicated to D. R. I. M., in 841-27-W.S., dated 22nd February 1916, and he replied in his Q.T.-61, dated 25th February 1916, that both the "John Mullins" and "Ailee" were fit for their work in their own district, but after being prepared and towed to Basrah it is as likely as not that these fragile vessels may have received injuries that necessitate extensive work on them before they can be used.

- (b) In his telegram No. 756-372-Q., dated 6th March 1916 (Dy. No. 42285), G. O. C. reported that when the engines of the Paddler "Gunga" were being turned by hand, the low pressure cylinder smashed. The accident was caused by an eye bolt having been left in the jink ring of the piston and could only be attributed to malicious intent or gross carelessness when the vessel was despatched.

In his No. 2687, dated 14th April 1916, D. R. I. M. forwarded copies of correspondence which show that the Marine Authorities took every precaution.

- (c) Telegram No. 1242-21-Q., dated 19th April 1916 (Dy. No. 54973), report of river craft which has arrived at Basrah between 1st January and 15th April 1916. A copy of this has been sent to D. R. I. M.

- (d) Telegram No. 1455-25 Q., dated 23rd May 1916 (Dy. No. 55696), regarding the very poor condition of certain motor launches, this telegram has been repeated to G. O. C., Singapore, who purchased the launches in question.

In regard to those complaints it may be remarked that either the D. R. I. M. or his Port Officers, or G. O. C. Singapore in the case of "River Craft" taken up at that Port, are always asked to arrange for craft to be surveyed, and reported on as to their fitness for hard continuous service, and no craft are accepted until they are reported as fit.

Telegram P., No. 1501-5-Q., dated 11th April 1916.

From—The General Officer Commanding Force "D", Basrah,

To—The Chief of the General Staff, Simla.

Continuation of my 1501-3-Q., of 6th April (Dy. No. 47366) regarding statement in your wire S. 9633, that Lynch's former and present superintending engineers are in agreement that the barges with square shaped bows and 170 feet in length

Quest'03 7. designed by your naval architect are suitable for the Tigris and in comparison with anything there, superior in many ways. Some misunderstanding, it appears, exists on this subject and it is extremely necessary that the misunderstanding should be removed. When I received your above quoted telegram, I referred the subject to Lynch Brothers here as your naval architect's opinion was directly opposed to that held by them here and also to the opinion of their Basrah superintending engineer. Messrs Lynch Brothers have referred the matter to their London office and a reply has been received that neither their consulting engineer in England, Mr. Thomas, nor any body else connected with the firm has been consulted with reference to the barges under discussion. They disclaim responsibility for any opinion which their superintending engineer may have expressed. It is incumbent on me to invite your attention to what in my opinion is an incontrovertible fact but the relative importance of which it is difficult for anybody outside this country to estimate. In my judgment it is quite beyond the ability of anyone in England or elsewhere unless he possesses a wide personal knowledge of this country to form any correct estimate of the peculiarities of Mesopotamia or, in particular, of the idiosyncrasies of the Tigris. Full details of the specifications of what I require in regard to barges and river craft which were to be specially constructed for eventual use in this country were given in my 341-1-Q., dated 10th July, and 341-1-2-Q. (? 341-2 Q.) of 17th July 1915, to Chief General Staff, India, with the object of further ensuring that all vessels would be constructed on lines essential to successful employment in Mesopotamia, I recommended in my telegram of 23rd July 1915, to Chief General Staff, India, No. 766-2-Q, that the consulting engineer to Lynch Brothers, Mr. Thomas, should be despatched to England to superintend the construction of steamers and subsequently, *vide* my telegram of 5th August, No. 766-8-Q., to the Chief General Staff, India, I suggested that our agents in the matter should be Lynch Brothers. In spite of the above and having regard to the fact that Tigris craft have been navigated for upwards of 70 years by Lynch Brothers and also that the practical experience gained by the officers of the Royal Indian Marine since the beginning of the military operations in Mesopotamia is coincident with Lynch Brothers, unique knowledge of the idiosyncrasies of the Tigris it seems that your naval architect has thought it desirable to design a type of barge which is suitable in his opinion. Having regard to the facts stated above and in the event of these barges with square bows proving a failure which is expected here I think it very necessary that I should lay before you the fullest details of the case as it now stands. Not only is there the question of loss to the state but what is of greater importance the possibility also of my being sent a large number of barges which although the intention was that they should be specially built for a particular purpose may not be found suitable for local requirements. I wish again to suggest the paramount importance of consulting Lynch Brothers in England or, if that is not considered expedient, of sending Home Commander Hamilton of the Royal Indian Marine with the least possible delay to give advice on all matters relating to the building of barges and craft.

Repeated Chief of the General Staff, Simla, and addressed Secretary of State for India.

Telegram P., No. M.-24817, dated 21st July 1915.

From—The Secretary of State for India,

To—The Viceroy (Army Department).

Tugs for Force "D". I am informed by the Admiralty that the vessels you ask for are not procurable. They also suggest that the General Officer Commanding, Indian Expeditionary Force "D," should communicate with the Senior Naval Officers, Persian Gulf, to ascertain what arrangements are practicable as regards tugs and also the best manner in which the requirements of Indian Expeditionary Force "D", can be met.

Please refer to your telegram No. H.-6086 (*Dy. No. S.-14238*), dated 6th July 1915, in connection with above.

Memorandum No. 1242-21-Q., dated 3rd May 1916.

Question 7.

From—The General Officer Commanding, Indian Expeditionary Force "D."

To—The Chief of the General Staff, Simla.

The attached report on river craft, which has arrived at Basrah between the 1st January and 15th April 1916, has been drawn up and is now submitted as it is considered that the information may be of use in gauging the suitability of craft for employment in Mesopotamia.

REPORT ON RIVER CRAFT ARRIVING AT BASRAH FROM 1ST JANUARY TO 10TH APRIL 1916.

I. PADDLE BOATS.

A. India.

(1) "Ailee" (P. 8). This boat which arrived at Basrah on 7th January 1916 was stated, according to Chief of the General Staff's telegram No. S.-30116, dated 9th December 1915, to be capable of towing two barges and to have a speed of 9 knots. On her arrival she was found to be in a very bad state of repair, in spite of the fact that she only came from Karachi, having previously belonged to the Commissioner of Sind. Since being put into commission she has practically done no work owing to continuous breakdowns, and is now undergoing extensive repairs and to all intents and purposes may be classed as only fit for use as a despatch boat. She is incapable of towing any kind of craft owing to the structural weakness of her sponsons.

(2) "Kalabag" (P. 9). Purchased from the North-Western Railway. A small but speedy boat. Arrived at Basrah on 20th January 1916, steams and tows well and has done good work since being put into service.

(3) "John Mullins" (P. 10). Purchased from the Calcutta River Steam Navigation Company, arrived at Basrah on 1st February 1916. On her arrival at Basrah this boat was found to require extensive repairs and fitting out and it took 25 days before she was ready to carry out her first trip. She is an exceedingly slow boat, finds difficulty in keeping up steam, and does not come up to specifications given in Chief of the General Staff's telegram No. S.-30116, dated 9th December 1915, as regards speed or towing capacity.

(4) "Sara" (P. 11) of the Eastern Bengal State Railway arrived at Basra on 19th February 1916 and has so far proved satisfactory and up to specifications.

(5) "Raja Mundry" (P. 12) of the Eastern Bengal State Railway has come up to specifications given but was reported on her first trip to steam badly and great difficulty was experienced in keeping up steam, but, the crew having got to know the ship, steam is now better maintained and steering difficulties have more or less been overcome.

(6) "Gurga" (P. 18) of the East Indian Railway Company, arrived at Basra 1st March 1916, but owing to an eye bolt having been left in the junk ring of the piston either through gross carelessness or malicious intent on the part of those employed in the fitting out of this boat for the voyage, her low pressure cylinder was smashed when turning over the engine by hand. In consequence, a new cylinder cover had to be cast at Abadan causing loss of valuable time as she was not available for work on the river till 28th March 1916. This vessel is reported on as steaming and steering well.

(7) "Saraswati" (P. 19) of the East Indian Railway Company arrived Basrah 1st March 1916. She is reported as steaming and steering well.

(8) "Tara" (P. 20) of the East Indian Railway Company. She is reported to steam badly and with barges in tow steers badly. Arrived Basra 1st March 1916.

(9) "Lakshmi" (P. 17) of the East Indian Railway Company. Arrived Basrah 1st March 1916 and was placed on the river for work on 13th March

Questions 7. 1916. She arrived at Amarah on 16th where she reported that her piston had broken. In consequence of this, the boat will be laid up till the end of April as Abadan is unable to undertake the repairs and the new part has had to be constructed in India by the East Indian Railway.

10 "Prince Alfred" (P. 21) of the Calcutta River Steam Navigation Company arrived at Basrah on 9th March 1916. The specifications given in Chief of the General Staff's No. S.-30116, dated 9th December 1915, state that this boat has accommodation for 1,250 deck passengers in addition to 43 saloon. At the most she is capable of accommodating 500 troops or 60 horses. It may also be mentioned that her first trip up river was carried out on the 16th and date of her return to Basrah was the 26th. She is reported to be very unwieldy and difficult to steer. Since her arrival she was found to require extensive repairs which placed her out of action for twelve days. This vessel on account of her length beam and the design of her rudder is unsuitable and the navigation of the narrows between Qalat Salin and Qurna coming down stream is attended with some danger.

(11) "Osaka" (P. 23) of the Irrawaddy Steamship Flotilla arrived at Basrah on 17th March and has so far proved satisfactory.

(12) "Bhagavatti" (P. 16) of the East Indian Railway Company arrived at Basrah on 18th March and is reported to steam well but steers badly with barges in tow.

(13) "Damukdia" (P. 14) of the Eastern Bengal State Railway arrived at Basrah on the 19th March and so far has proved satisfactory and with the exception that her rudder and steering engine were found defective on her first trip up river. These faults have since been remedied.

(14) "Kavur" (P. 15) of the Eastern Bengal State Railway arrived at Basra on 3rd April 1916 and is at present undergoing her first trip. She is satisfactory with the exception of her steam reversing which is not yet efficient.

(15) "Otaru" (P. 24) of the Irrawaddy S. S. "Flotilla" arrived at Basra on the 3rd April 1916 and has proved satisfactory so far.

B. Egypt.

The following paddle boats arrived from Egypt on the dates given :—

Sequence No.	Name.	P. M. T. O. No.	From whom purchased.	Date arrived.
(1)	Rameses III ...	P.-36 ...	Cook's Nile Flotilla ...	8-3-16.
(2)	Amasis ...	P. 30 ...	" " " ...	8-3-16.
(3)	Prince Abbas ...	P.-35 ...	" " " ...	10-3-16.
(4)	Hatasoo ...	P.-32 ...	" " " ...	18-3-16.
(5)	Cleopatra ...	P.-33 ...	" " " ...	18-3-16.
(6)	Amenartas... ..	P.-31 ...	" " " ...	4-4-16.

None of the above boats can be considered as satisfactory or coming up to expectations. They are all very old and owing to their sponson scantlings being very slight are not considered suitable for towing barges alongside. Since their arrival "Rameses III" has broken down and requires extensive repairs before

she will again be ready for work, and the "Cleopatra" arrived in very bad condition and it is considered doubtful whether she will ever be of much use. All these boats are very slow and in several cases have been delayed by being unable to make headway against the current. Question 7.

II.—STERN WHEELERS.

(1) "Falam" (S.-1) of the Irrawaddy S. S. "Flotilla" arrived at Basrah on 16th January; a speedy boat; has proved very satisfactory and steams well, but is only capable of taking light tows up stream and in consequence her carrying capacity is considerably reduced.

(2) "Pima" (S.-2) of the Irrawaddy S S "Flotilla" arrived at Basrah on 27th January. At first reported as very unwieldy and difficult to steer, but, since crew have got to know her, has proved most satisfactory and steams well. She is only capable of taking light tows up stream.

(3) "Sikkim" (H. S.-1) of the Irrawaddy S. S. "Flotilla" arrived at Basrah on 8th March. As a hospital ship has proved satisfactory so far and could take light tows up stream, but this is not advisable on account of the buildings on the lower deck, against which a tow bears when fast alongside.

(4) "Morzal" (S.-3) of the Calcutta River Steam Navigation Company. Arrived Basrah 21st March 1916. Is unable to tow barges and finds great difficulty in keeping up steam when proceeding up stream against the current. Compares most unfavourably with sternwheelers "Pima" and "Falam" as regards speed, and is of such small power that she cannot stem the current.

(5) "Hunza" (S.-4) of the Calcutta River Steam Navigation Company. Arrived Basrah on 4th April 1916. A boat of the same class as the "Morzal"; very slow and compares very unfavourably with the "Pima" and "Falam."

III.—TUGS.

(1) "Kasna" (T-5) arrived Basrah on 23rd January. A rather slow but otherwise satisfactory boat. Somewhat of the same class as the "T" boats of the Irrawaddy Steamship Flotilla.

(2) "Nawab" arrived Basrah on 23rd January 1916. Is a very useful boat for port work.

(3) "Gadwal" (L.-22) of the Eastern Bengal State Railway; arrived Basrah on the 28th February. A satisfactory boat and suitable for small tows and port work.

(4) "Pintail" (L.-21) of the Eastern Bengal State Railway; arrived Basrah on 28th February; a satisfactory boat and suitable for small tows and port work.

(5) "Ailsa" (L.-26) of the British India Steam Navigation Company, arrived Basrah on 29th February. A very useful tender and tug for harbour work generally.

Sequence No.	Name.	P. M. T. O.'s No	From whom purchased.	Date arrived Basrah.
6	Setter ...	...	Calcutta River Steam Navigation Coy.	15th February 1916.
7	Spaniel ...	L. 27 ...	" " "	29th February 1916.
8	Pointer ...	L. 26 ...	" " "	29th February 1916.
9	Beagle ...	...	" " "	8th March 1916.
10	Terrier ...	...	" " "	8th March 1916.
11	Lurcher ...	L. 39 ...	" " "	2nd April 1916.

Question 7.

All the above so called "Tugs" have proved most unsatisfactory. They are exceedingly slow and can hardly make headway against the downward current. They in no way come up to specification given in .CG.S. No. S.-30116, dated 9th February 1916, as regards speed and towing capacity, and are not even up to the standard of a "L" class launch.

(12) "Lanmadaw" of the Irrawaddy Steamship Flotilla arrived Basrah on 14th April, and is at present being used at Kuwait for towing new craft arrived from England up to Abadan.

Telegram No. 1435-25, dated 23rd May 1916.

From—The General Officer Commanding, Force "D", Basrah.

To—The Chief of the General Staff, Simla.

Your telegram No. 43392, dated 14th March, and your telegram 46045, dated 29th April. Expert examination of the engine of the following motor launches "Ixora" "Glygine," "Zephyr" and "Kalmia," reveals fact that their machinery requires most thorough overhaul. Bearings require adjustment or re-installing and, generally speaking, these motor launches are in very poor order indicative of having been subjected to gross neglect. A number of spare parts will be required before they can be utilised and their overhaul generally will entail heavy work which the motor flotilla workshops are not in a position to undertake to any large extent in addition to ordinary running repairs to large existing fleet. In view of the difficulties that exist in keeping new motors in good order with partially trained and careless drivers, I would point out that the purchase of any launches which are not in first class running order is far from economical entailing an increased number of unreliable boats and considerable addition to properly qualified mechanics to deal with them. I would ask that no more motor boats be purchased unless thoroughly overhauled by competent motor engineers prior to purchase, or if this is unpracticable unless the vendor furnished comprehensive guarantee. Detailed report follows by post.

Deputy Director of Ordnance Services, 12th Division.. Extract from War Diary of May 1916.

"19th May 1915. I take this opportunity to remark that it seems to me wrong that I am never given any information as to projected movements of troops. There are no doubt many projected movements which are too secret to be told, but there is also no doubt that the early supply of ordnance stores to troops would be greatly facilitated if I were told anything at all".

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